

GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: July 30, 2002, 08:07:01 ; Search time 15.98 Seconds  
(without alignments)  
82.382 Million cell updates/sec

Title: us-10-016-969-3  
Perfect score: 180  
Sequence: 1 IKPEAPGEDASPEELNRYVASLRHYLNLVTRQRY 34

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Database : SwissProt\_40.\*

arched: 105224 seqs, 38719550 residues

Total number of hits satisfying chosen parameters: 105224  
Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	180	100.0	97	1	PYY_HUMAN
2	171	95.0	36	1	PYY_PIG
3	171	95.0	93	1	PYY_MOUSE
4	171	95.0	98	1	PYY_RAT
5	155	86.1	97	1	PYY_BOVIN
6	151	83.9	36	1	SPYY_PHYBI
7	147	81.7	36	1	PYY_AMICA
8	145	80.6	36	1	PYY_LEPSP
9	144	80.0	36	1	PYY_ONCKI
10	144	80.0	36	1	PYY_RAJRH
11	143	79.4	97	1	PYY_BRARE
12	142	78.9	36	1	PYY_RANRI
13	140	77.8	99	1	NEUY_DICLA
14	139	77.2	36	1	NEUY_ONCMY
15	138	76.7	36	1	NEUY_GADMO
16	136	75.6	37	1	PYY_CHICK
17	135	75.0	97	1	NEUY_PIG
18	134	74.4	36	1	NEUY_BRARE
19	134	74.4	96	1	NEUY_PIG
20	133	73.9	36	1	PYY_ORENI
21	132	73.3	36	1	NEUY_RABIT
22	132	73.3	97	1	NEUY_HUMAN
23	132	73.3	97	1	NEUY_MOUSE
24	132	73.3	98	1	NEUY_RAT
25	131	72.8	36	1	NEUY_SHEEP
26	129	71.7	36	1	NEUY_XENLA
27	129	71.7	97	1	NEUY_XENLA
28	128	71.1	93	1	PYY_LAMFL
29	128	71.1	97	1	PYY_DICLA
30	127	70.6	96	1	NEUY_CARAU
31	126	70.0	104	1	NEUY_LAMFL
32	124	68.9	98	1	NEUY_TORMA
33	124	68.9	99	1	PYY_DICLA

34	122	67.8	36	1	PYY_MYOSC	P09641 myoxocephal
35	121	67.2	69	1	PYY_LOPAM	P09475 lophius ame
36	118	65.6	36	1	PYY_PETMA	P80024 petromyzon
37	106	58.9	59	1	PAHO_SHEEP	P01301 ovis aries
38	106	58.9	131	1	PAHO_BOVIN	P01302 bos taurus
39	104	57.8	36	1	PAHO_PIG	P01300 sus scrofa
40	104	57.8	93	1	PAHO_CANFA	P01299 canis famill
41	102	56.7	36	1	PAHO_CERST	P37999 ceratotheri
42	102	56.7	36	1	PAHO_RABIT	P41336 oryctolagus
43	100	55.6	36	1	PAHO_LARAR	P41337 larus argen
44	99	55.0	36	1	PAHO_DIDMA	P18107 didelphis m
45	99	55.0	36	1	PAHO_MACMU	P33684 macaca mula

## ALIGNMENTS

RESULT 1  
PYY\_HUMAN  
ID PYY\_HUMAN STANDARD; PRT; 97 AA.

AC P10082;  
DT 01-MAR-1989 (Rel. 10, Created)  
DT 01-NOV-1995 (Rel. 32, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
DE Peptide YY precursor (PYY) (Peptide tyrosine tyrosine).  
GN PYY.  
OS Homo sapiens (Human).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.  
OX NCBI\_TaxID=9606;  
RN [1]

RP SEQUENCE FROM N.A.  
RC TISSUE=Colon mucosa;  
RX MEDLINE=93305732; PubMed=8318545;  
RA Kohri K., Nata K., Yonekura H., Nagai A., Konno K., Okamoto H.;  
RT "Cloning and structural determination of human peptide YY cDNA and  
RT gene.";  
RL Biochim. Biophys. Acta 1173:345-349(1993).  
RN [2]

RP SEQUENCE FROM N.A.  
RC TISSUE=Lymphocytes;  
RX Herzog H.;  
RL Submitted (NOV-1993) to the EMBL/GenBank/DBJ databases.  
RN [3]

RP SEQUENCE OF 29-64, AND SYNTHESIS OF 29-64.  
RX MEDLINE=89076307; PubMed=3202875;  
RA Tatemoto K., Nakano I., Maki G., Angwin P., Mann M., Schilling J.,  
RA Go V.L.W.;  
RT "Isolation and primary structure of human peptide YY.";  
RL Biochem. Biophys. Res. Commun. 157:713-717(1988).  
RN [4]

RP SEQUENCE OF 29-64.  
RX MEDLINE=90068171; PubMed=2587421;  
RA Eberlein G.A., Eysselein V.E., Schaeffer M., Layer P., Grandt D.,  
RA Goebel H., Niebel W., Davis M., Lee T.D., Shively J.E.,  
RA Reeve J.R., Jr.;  
RT "A new molecular form of PYY: structural characterization of human  
RT PYY(3-36) and PYY(1-36).";  
RL Peptides 10:797-803(1989).  
CC -!- FUNCTION: THIS GUT PEPTIDE INHIBITS EXOCRINE PANCREATIC SECRETION,  
CC HAS A VASOCONSTRICTORY ACTION AND INHIBITS JEJUNAL AND COLONIC  
CC MOTILITY.  
CC -!- SUBCELLULAR LOCATION: Secreted.  
CC -!- ALTERNATIVE PRODUCTS: 2 ISOFORMS; A LONG FORM (SHOWN HERE) AND A  
CC SHORT FORM; ARE PRODUCED BY ALTERNATIVE SPLICING.  
CC -!- SIMILARITY: BELONGS TO THE NPY / PYY / PYY FAMILY.

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CC or send an email to license@isb-sib.ch).
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DR EMBL; D13897; BAA02997.1; -
DR EMBL; D13897; BAA02998.1; -
DR EMBL; D13899; BAA03000.1; -
DR EMBL; D13902; BAA03002.1; -
DR EMBL; L25648; AAA36433.1; -
DR PIR; A31358; A31358.
DR PIR; A60676; A60676.
DR HSSP; P01303; 1RON.
DR MIM; 600781; -
DR InterPro; IPR001955; Pancreatic_horm.
DR Pfam; PF00159; hormone3; 1.
DR PRINTS; PR00278; PANCHORMONE.
DR ProDom; PD001267; Pancreatic_hormn; 1.
DR SMART; SM00309; PAH; 1.
DR PROSITE; PS00265; PANCREATIC_HORMONE_1; 1.
DR PROSITE; PS50276; PANCREATIC_HORMONE_2; 1.
KW Hormone; Cleavage on pair of basic residues; Pancreas; Amidation;
KW Signal; Alternative splicing.
FT SIGNAL 1 28
FT PEPTIDE 29 64 PEPTIDE YY.
FT PROPEP 68 97
FT MOD_RES 64 64 AMIDATION (G-65 PROVIDE AMIDE GROUP).
FT VARSPLIC 91 97 MISSING (IN SHORT ISOFORM).
FT VARIANT 72 72 T->R.
FT
FT
SO SEQUENCE 97 AA; 11046 MW; DD16B73407F656A4 CRC64;

Query Match
Best Local Similarity 100.0%; Score 180; DB 1; Length 97;
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34
Db 31 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 64

RESULT 2
PYX_PIG STANDARD; PRT; 36 AA.
AC P01305;
DT 21-JUL-1986 (Rel. 01, Created)
DT 21-JUL-1986 (Rel. 01, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Peptide YY (PYX) (Peptide tyrosine tyrosine).
GN PYX.
OS Sus scrofa (Pig), and
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX NCBI_TaxID=9823, 9615;
[1]
SEQUENCE.
RC SPECIES=Pig;
RX MEDLINE=82222168; PubMed=6953409;
RA Tatemoto K.;
RT "Isolation and characterization of peptide YY (PYX), a candidate gut
RL hormone that inhibits pancreatic exocrine secretion.";
RN Proc. Natl. Acad. Sci. U.S.A. 79:2514-2518(1982).
[2]
SEQUENCE.
RC SPECIES=C.familiaris;
RX MEDLINE=90259843; PubMed=2342986;
RA Eysselein V.E., Eberlein G.A., Grandt D., Schaefer M., Zehres B.,
RA Behn U., Schaefer D., Goebell H., Davis M., Lee T.D., Shively J.E.,
RA Meyer H.E., Reeve J.R. Jr.;
RT "Structural characterization of canine PYX";
RL Peptides 11:111-116(1990).
CC -!- FUNCTION: THIS GUT PEPTIDE INHIBITS EXOCRINE PANCREATIC SECRETION,
CC HAS A VASOCONSTRICTORY ACTION AND INHIBITS JEJUNAL AND COLONIC
CC MOBILITY.
```

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CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: BELONGS TO THE NPY / PPY / PYX FAMILY.
DR PIR; A01574; YYPG.
DR PIR; A60416; A60416.
DR HSSP; P01303; 1RON.
DR InterPro; IPR001955; Pancreatic_hormn.
DR Pfam; PF00159; hormone3; 1.
DR PRINTS; PR00278; PANCHORMONE.
DR ProDom; PD001267; Pancreatic_hormn; 1.
DR SMART; SM00309; PAH; 1.
DR PROSITE; PS00265; PANCREATIC_HORMONE_1; 1.
DR PROSITE; PS50276; PANCREATIC_HORMONE_2; 1.
KW Hormone; Cleavage on pair of basic residues; Pancreas; Amidation;
KW Signal.
FT SIGNAL 1 28
FT PEPTIDE 29 64 BY SIMILARITY.
FT PROPEP 68 >93 PEPTIDE YY.
FT MOD_RES 64 64 AMIDATION (G-65 PROVIDE AMIDE GROUP).

Query Match
Best Local Similarity 95.0%; Score 171; DB 1; Length 36;
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34
Db 4 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

RESULT 3
PYX_MOUSE STANDARD; PRT; 93 AA.
AC Q9EP52;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 01-MAR-2002 (Rel. 41, Last annotation update)
DE Peptide YY precursor (PYX) (Peptide tyrosine tyrosine) (Fragment).
GN PYX.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
[1]
SEQUENCE FROM N.A.
RC STRAIN=BALB/c; TISSUE=Liver;
RA Brown G.J., James R., Eddie L.W.;
RL Submitted (DEC-2000) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: THIS GUT PEPTIDE INHIBITS EXOCRINE PANCREATIC SECRETION,
CC HAS A VASOCONSTRICTORY ACTION AND INHIBITS JEJUNAL AND COLONIC
CC MOBILITY.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: BELONGS TO THE NPY / PPY / PYX FAMILY.
CC
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CC
DR EMBL; AF325866; AAG42908.1; -
DR MGD; MGI:99924; PYX.
DR InterPro; IPR001955; Pancreatic_hormn.
DR Pfam; PF00159; hormone3; 1.
DR PRINTS; PR00278; PANCHORMONE.
DR ProDom; PD001267; Pancreatic_hormn; 1.
DR SMART; SM00309; PAH; 1.
DR PROSITE; PS00265; PANCREATIC_HORMONE_1; 1.
DR PROSITE; PS50276; PANCREATIC_HORMONE_2; 1.
KW Hormone; Cleavage on pair of basic residues; Pancreas; Amidation;
KW Signal.
FT SIGNAL 1 28
FT PEPTIDE 29 64 BY SIMILARITY.
FT PROPEP 68 >93 PEPTIDE YY.
FT MOD_RES 64 64 AMIDATION (G-65 PROVIDE AMIDE GROUP).
```

FT NON\_TER 93 93  
SQ SEQUENCE 93 AA; 10481 MW; 2320990F05992030 CRC64;

Query Match 95.0%; Score 171; DB 1; Length 93;  
Best Local Similarity 97.0%; Pred. No. 3.1e-17;  
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 32 KPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 64

RESULT 4  
PYRAT PYRAT STANDARD; PRT; 98 AA.

AC P10631;  
01-JUL-1989 (Rel. 11, Created)  
01-JUL-1989 (Rel. 11, Last sequence update)  
16-OCT-2001 (Rel. 40, Last annotation update)  
peptide YY precursor (PYR) (Peptide tyrosine tyrosine).  
DE  
GN  
OS Rattus norvegicus (Rat).  
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.  
OX NCBI\_TaxID=10116;

RN [1]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=88007492; PubMed=3654598;  
RA Leiter A.B., Toder A., Wolfe H.J., Taylor I.L., Cooperman S.,  
RT Mandel G., Goodman R.H.;  
RT "Peptide YY. Structure of the precursor and expression in exocrine  
pancreas."  
RL J. Biol. Chem. 262:12984-12988(1987).  
RN [2]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=91367188; PubMed=1890992;  
RA Krasinski S.D., Wheeler M.B., Leiter A.B.;  
RT "Isolation, characterization, and developmental expression of the rat  
peptide-YY gene."  
RL Mol. Endocrinol. 5:433-440(1991).  
RN [3]  
RP SEQUENCE OF 29-64.  
RX MEDLINE=88321122; PubMed=3413293;  
RA Corder R., Gaillard R.C., Boehlen P.;  
RT "Isolation and sequence of rat peptide YY and neuropeptide Y."  
Regul. Pept. 21:253-261(1988).  
RN -1- FUNCTION: THIS GUT PEPTIDE INHIBITS EXOCRINE PANCREATIC SECRETION,  
HAS A VASOCONSTRICTORY ACTION AND INHIBITS JEJUNAL AND COLONIC  
MOBILITY.

CC -1- SUBCELLULAR LOCATION: Secreted.  
CC -1- SIMILARITY: BELONGS TO THE NPV / PPY / PYR FAMILY.

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CC EMBL; S57220; AAB19752.1; -  
DR EMBL; M17523; AAA41222.1; -  
DR PIR; A29364; A29364.  
DR PIR; A37955; A37955.  
DR HSSP; P01303; IRON.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR PRODOM; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANGCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANGCREATIC\_HORMONE\_2; 1.

KW Hormone; Cleavage on pair of basic residues; Pancreas; Amidation;  
KW Signal.  
FT SIGNAL 1 28  
FT PEPTIDE 29 64  
FT PROPEP 68 98  
FT MOD\_RES 64 64  
SQ SEQUENCE 98 AA; 11121 MW; 994C0C3AD6A8A7DE CRC64;

Query Match 95.0%; Score 171; DB 1; Length 98;  
Best Local Similarity 97.0%; Pred. No. 3.3e-17;  
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 32 KPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 64

RESULT 5  
PYRAT PYRAT STANDARD; PRT; 97 AA.

AC P51694;  
01-OCT-1996 (Rel. 34, Created)  
01-OCT-1996 (Rel. 34, Last sequence update)  
16-OCT-2001 (Rel. 40, Last annotation update)  
peptide YY precursor (PYR) (Peptide tyrosine tyrosine).  
DE  
GN  
OS Bos taurus (Bovine).  
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;  
OC Bovidae; Bovinae; Bos.  
OX NCBI\_TaxID=9913;

RN [1]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=95132646; PubMed=7831336;  
RA Herzog H., Hort Y., Schneider R., Shine J.;  
RT "Seminalplasmin: recent evolution of another member of the  
neuropeptide Y gene family."  
Proc. Natl. Acad. Sci. U.S.A. 92:594-598(1995).  
RN -1- FUNCTION: THIS GUT PEPTIDE INHIBITS EXOCRINE PANCREATIC SECRETION,  
HAS A VASOCONSTRICTORY ACTION AND INHIBITS JEJUNAL AND COLONIC  
MOBILITY.

CC -1- SUBCELLULAR LOCATION: Secreted.  
CC -1- SIMILARITY: BELONGS TO THE NPV / PPY / PYR FAMILY.  
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CC EMBL; L37369; AAC37326.1; -  
DR HSSP; P01303; IRON.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR PRODOM; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANGCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANGCREATIC\_HORMONE\_2; 1.  
KW Hormone; Cleavage on pair of basic residues; Pancreas; Amidation;  
KW Signal.  
FT SIGNAL 1 28  
FT PEPTIDE 29 64  
FT PROPEP 68 97  
FT MOD\_RES 64 64  
SQ SEQUENCE 97 AA; 11092 MW; B3A7B6A768BB3AE0 CRC64;

Query Match 86.1%; Score 155; DB 1; Length 97;  
Best Local Similarity 84.8%; Pred. No. 5.7e-15;







RT of the spiny dogfish, *Squalus acanthias*.";  
RL Regul. Pept. 35:252-252(1991).  
CC -1- FUNCTION: ELICITS AN INCREASE IN ARTERIAL BLOOD PRESSURE.  
CC -1- SUBCELLULAR LOCATION: Secreted.  
CC -1- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.  
DR PIR; S07215; PCGXA.  
DR PIR; A60022; PCDEF.  
DR PIR; A49743; A49743.  
DR HSSP; P01303; 1RON.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR PRODOM; PD001267; pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANCREATIC\_HORMONE\_2; 1.  
KW Hormone; Amidation.  
MOD\_RES 36  
SEQUENCE 36 AA; 4291 MW; 56A6D8CC086660AA CRC64;

Query Match 80.6%; Score 145; DB 1; Length 36;  
Best Local Similarity 75.8%; Pred. No. 4.3e-14;  
Matches 25; Conservative 5; Mismatches 3; Indels 0; Gaps 0;

OY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
||| ||||| ||||| :||: ||||| :||: |||||  
Db 4 KPENPGEDAPPEELAKYYTALRHYINLITRQRY 36

## RESULT 9

PYY\_ONCKI STANDARD; PRT; 36 AA.

AC P09474;  
DT 01-MAR-1989 (Rel. 10, Created)  
DT 01-MAR-1989 (Rel. 10, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
DE Peptide YY-like (PYY).  
OS Oncorhynchus kisutch (Coho salmon), and  
OS Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei;  
OC Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.  
OX NCBI\_TaxID=8019, 8022;

## [1]

SEQUENCE.  
SPECIES=O.kisutch; TISSUE=Pancreas;  
MEDLINE=87128023; PubMed=3545195;  
RA Kimmel J.R., Plisetskaya E.M., Pollock H.G., Hamilton J.W.,  
RA Rouse J.B., Ebner K.E., Rawitch A.B.;  
RT "Structure of a peptide from coho salmon endocrine pancreas with  
RT homology to neuropeptide Y.";  
RL Biochem. Biophys. Res. Commun. 141:1084-1091(1986).  
RN [2]

## [3]

SEQUENCE.  
SPECIES=O.mykiss; TISSUE=Brain, and Stomach;  
MEDLINE=93092973; PubMed=1459125;  
RA Jensen J., Conlon J.M.;  
RT "Characterization of peptides related to neuropeptide tyrosine and  
RT peptide tyrosine-tyrosine from the brain and gastrointestinal tract  
RT of teleost fish.";  
RL Eur. J. Biochem. 210:405-410(1992).

## [3]

RP SEQUENCE.  
RC SPECIES=O.mykiss; TISSUE=Brain;  
RX MEDLINE=93157164; PubMed=1494498;  
RA Barton C.L., Shaw C., Halton D.W., Thim L.;  
RT "Rainbow trout (Oncorhynchus mykiss) neuropeptide Y.";  
RL Peptides 13:1159-1163(1992).  
CC -1- SUBCELLULAR LOCATION: Secreted.  
CC -1- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.  
DR PIR; A26377; A26377.  
DR HSSP; P01303; 1RON.

DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR PRODOM; PD001267; pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANCREATIC\_HORMONE\_2; 1.  
KW Hormone; Amidation.  
MOD\_RES 36  
SEQUENCE 36 AA; 4305 MW; 56A6D8CC08666671 CRC64;

Query Match 80.0%; Score 144; DB 1; Length 36;  
Best Local Similarity 75.8%; Pred. No. 5.9e-14;  
Matches 25; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

OY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
||| ||||| ||||| :||: ||||| :||: |||||  
Db 4 KPENPGEDAPPEELAKYYTALRHYINLITRQRY 36

## RESULT 10

PYY\_RAJRH STANDARD; PRT; 36 AA.

AC P29206;  
DT 01-DEC-1992 (Rel. 24, Created)  
DT 01-DEC-1992 (Rel. 24, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
DE Peptide YY-like (PYY).  
OS Raja rhina (Skate).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;  
OC Elasmobranchii; Squala; Hypnosquala; Pristioraja; Batoidae;  
OC Rajiformes; Rajidae; Raja.  
OX NCBI\_TaxID=30478;

## [1]

SEQUENCE.  
MEDLINE=91296574; PubMed=2067973;  
RA Conlon J.M., Bjerning C., Moon T.W., Youson J.H., Thim L.;  
RT "Neuropeptide Y-related peptides from the pancreas of a teleostean  
RT (eel), holostean (bowfin) and elasmobranch (skate) fish.";  
RL Peptides 12:221-226(1991).  
CC -1- SUBCELLULAR LOCATION: Secreted.  
CC -1- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.  
DR HSSP; P01303; 1RON.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR PRODOM; PD001267; pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANCREATIC\_HORMONE\_2; 1.  
KW Hormone; Amidation.  
MOD\_RES 36  
SEQUENCE 36 AA; 4251 MW; 07A7D9DC196660B6 CRC64;

Query Match 80.0%; Score 144; DB 1; Length 36;  
Best Local Similarity 72.7%; Pred. No. 5.9e-14;  
Matches 24; Conservative 7; Mismatches 2; Indels 0; Gaps 0;

OY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
||| ||||| ||||| :||: ||||| :||: |||||  
Db 4 KPENPGEDAPPEELAKYYTALRHYINLITRQRY 36

## RESULT 11

PYY\_BRARE STANDARD; PRT; 97 AA.

AC Q918P2;  
DT 01-MAR-2002 (Rel. 41, Created)  
DT 01-MAR-2002 (Rel. 41, Last sequence update)  
DT 01-MAR-2002 (Rel. 41, Last annotation update)  
DE Peptide YY precursor.



DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR ProDom; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANCREATIC\_HORMONE\_2; 1.  
KW Neuropeptide; Cleavage on pair of basic residues; Signal; Amidation.  
FT SIGNAL 1 28 BY SIMILARITY.  
FT PEPTIDE 29 64 NEUROPEPTIDE Y.  
FT PROPEP 68 99  
FT MOD\_RES 64 64  
SQ SEQUENCE 99 AA; 11260 MW; 4EEFAED164964184 CRC64;

Query Match	77.88;	Score 140;	DB 1;	Length 99;
Best Local Similarity	70.68;	Pred. No. 7.4e-13;		
Matches 24; Conservative	6;	Mismatches 4;	Indels 0;	Gaps 0;

```

0y 1 IKPEAPGEDASPEELNRYIASLRHYLNLVTRQRY 34
    :||| ||| ||| :|||: |||: |||: |||:
Db 31 VKPENPGEDAPAEELAKYYSALRHYINLITRQRY 64

```

RESULT	ID	NEUY_ONCMY	STANDARD;	PRT;	36 AA.
14	ID	NEUY_ONCMY	STANDARD;	PRT;	36 AA.
	AC	P29071;			
DT	01-DEC-1992	(Rel. 24, Created)			
DT	01-DEC-1992	(Rel. 24, Last sequence update)			
DT	01-MAR-2002	(Rel. 41, Last annotation update)			
DE	Neuropeptide Y (NPY).				
GN	NPY.				
OS	Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).				
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;				
OC	Actinopterygii; Neopterygii; Teleostei; Euteleostei;				
OC	Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.				
OX	NCBI_TaxId=8022;				
RN	[1]				
RP	SEQUENCE.				
RC	TISSUE=Brain;				
RX	MEDLINE=93092973; PubMed=1459125;				
RA	Jensen J., Conlon J.M.;				
RT	"Characterization of peptides related to neuropeptide tyrosine and				
RT	peptide tyrosine-tyrosine from the brain and gastrointestinal tract				
RT	of teleost fish.";				
RT	Eur. J. Biochem. 210:405-410(1992).				
CC	-1- FUNCTION: NPY IS IMPLICATED IN THE CONTROL OF FEEDING AND IN				
CC	SECRETION OF GONADOTROPHIN-RELEASE HORMONE.				
CC	-1- SUBCELLULAR LOCATION: Secreted.				
CC	-1- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.				
CC	HSSP: P01303; IRON.				
DR	InterPro: IPR001955; Pancreatic_hormn.				
DR	Pfam: PF00159; hormones3; 1.				
DR	PRINTS: PR00278; PANCHORMONE.				
DR	ProDom: PD001267; Pancreatic_hormn; 1.				
DR	SMART: SM00309; PAH; 1.				
DR	PROSITE: PS00265; PANGREATIC_HORMONE_1; 1.				
DR	PROSITE: PS50276; PANGREATIC_HORMONE_2; 1.				
KW	Neuropeptide; Amidation.				
FT	MOD_RES 36	AMIDATION.			
SEQUENCE	36 AA; 4311 MW; E2A32293A866611C CRC64;				

Query Match	77.28;	Score 139;	DB 1;	Length 36;
Best Local Similarity	70.68;	Pred. No. 3e-13;		
Matches 24; Conservative	5;	Mismatches 5;	Indels 0;	Caps 0;

```
QY      1 IKEAPGEDASPEELNRYASYALRHYLNVTROXY   34  
          :||| |||| | | :||| :||||:||| ||||  
Db       3 VKRPNGEDAPTLEELAKYYTALRHYNLTTRÖXY   36
```

RESULT	15
NEUY_GADMO	
ID NEUY_GADMO	STANDARD; PRT; 36 AA.
AC P80167;	
DT 01-DEC-1992 (Rel. 24, Created)	
DT 01-DEC-1992 (Rel. 24, Last sequence update)	
DT 01-MAR-2002 (Rel. 41, Last annotation update)	
DE Neuropeptide Y (NPY).	
GN NPY.	
OS Gadus morhua (Atlantic cod).	
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;	
OC Acanthomorpha; Paracanthopterygii; Gadiformes; Gadoidei; Gadidae;	
OC Gadus.	
OX NCBI_TaxID=8049;	
RN [1]	
RP SEQUENCE.	
RC TISSUE=Brain;	
RX MEDLINE=93092973; Pubmed=1459125;	
RA Jensen J., Conlon J.M.;	
RT "Characterization of peptides related to neuropeptide tyrosine and	
RT peptide tyrosine-tyrosine from the brain and gastrointestinal tract	
RT of teleost fish.",	
RL Eur. J. Biochem. 210:405-410(1992).	
CC -I- FUNCTION: NPY IS IMPLICATED IN THE CONTROL OF FEEDING AND IN	
CC SECRETION OF GONADOTROPHIN-RELEASE HORMONE.	
CC -I- SUBCELLULAR LOCATION: Secreted.	
CC -I- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.	
DR PIR; S27054; S27054.	
DR HSSP; P01303; IIRON.	
DR InterPro; IPR001955; Pancreatic_hormn.	
DR Pfam; PF00159; hormone3; 1.	
DR PRINTS; PR00278; PANCHORMONE.	
DR ProDom; PD001267; Pancreatic_hormn; 1.	
DR SMART; SM00309; PAH; 1.	
DR PROSITE; PS00265; PANCREATIC_HORMONE_1; 1.	
DR PROSITE; PS50276; PANCREATIC_HORMONE_2; 1.	
KW Neuropeptide; Amidation.	
FT MOD_RES 36	AMIDATION.
SO SEQUENCE 36 AA; 4267 MW; 17B09AA83867A7B6 CRC64;	

Query Match	76.7%;	Score 138;	DB 1;	Length 36;
Best Local Similarity	70.6%;	Pred. No. 4.1e-13;		
Matches	24;	Conservative	6;	Mismatches 4;
				Indels 0;
				Gaps 0;

  

QY	1	IKPEAPGEDASPEELNRRYYASLRHYLNLVTRQRY	34
		:   :  :    :	
Db	3	IKPENGEDAPADELAKYYALSALRHYINLITRQRY	36

Search completed: July 30, 2002, 08:07:01  
Job time: 354 sec





GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: July 30, 2002, 08:06:41 ; Search time 44.26 Seconds  
(without alignments)  
132.893 Million cell updates/sec

Title: US-10-016-969-3  
Perfect score: 180  
Sequence: 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 562222 segs, 172994929 residues

Total number of hits satisfying chosen parameters: 562222

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database :

SPTREMBL\_19:\*  
1: sp\_archaea:\*  
2: sp\_bacteria:\*  
3: sp\_fungi:\*  
4: sp\_human:\*  
5: sp\_invertebrate:\*  
6: sp\_mammal:\*  
7: sp\_mhnc:\*  
8: sp\_organelle:\*  
9: sp\_phage:\*  
10: sp\_plant:\*  
11: sp\_rodent:\*  
12: sp\_virus:\*  
13: sp\_vertebrate:\*  
14: sp\_unclassified:\*  
15: sp\_virus:\*  
16: sp\_bacteriophage:\*  
17: sp\_archaeap:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	176	97.8	34	6	Q9TR92	Q9TR92 oryctolagus
2	176	97.8	36	6	Q9TR93	Q9TR93 oryctolagus
3	171	95.0	98	11	Q91XD0	Q91XD0 mus musculu
4	143	79.4	97	13	Q918P2	Q918P2 brachydanio
5	137	76.1	99	13	Q90WF4	Q90WF4 paralychnio
6	136	75.6	95	13	Q919D3	Q919D3 ictalurus p
7	134	74.4	76	6	Q9N0M5	Q9N0M5 sus scrofa
8	134	74.4	96	13	Q9DCK7	Q9DCK7 cyprinus ca
9	134	74.4	96	13	Q918P3	Q918P3 brachydanio
10	132	73.3	97	6	Q9XSW6	Q9XSW6 macaca mula
11	131	72.8	89	11	Q925V2	Q925V2 mus musculu
12	131	72.8	90	6	Q9T5I6	Q9T5I6 ovis aries
13	129	71.7	97	13	Q9FW68	Q9FW68 typhlonecte
14	127	70.6	99	13	Q90WF3	Q90WF3 paralychnio
15	124	68.9	36	13	Q9PS46	Q9PS46 scylliorhinu
16	121	67.2	97	13	Q90WF2	Q90WF2 paralychnio

17	98	54.4	59	6	Q9GKI0	Q9GKI0 sus scrofa
18	63	35.0	89	5	Q9U0S9	Q9U0S9 lymnaea sta
19	62	34.4	21	13	Q9PS51	Q9PS51 lampetra fl
20	59	32.8	92	5	Q27441	Q27441 aplysia cal
21	58	32.2	77	16	Q97Q92	Q97Q92 streptococc
22	58	32.2	621	12	Q38017	Q38017 salmonid he
23	56.5	31.4	504	8	Q9TMI3	Q9TMI3 cyanidium c
24	56.5	31.4	6420	2	P95814	P95814 streptomyc
25	54.5	30.3	356	2	Q9L2L8	Q9L2L8 streptomyc
26	54.5	30.3	359	3	Q9C439	Q9C439 pneumocysti
27	54	30.0	501	4	Q96Q06	Q96Q06 homo sapien
28	54	30.0	501	4	Q96LX5	Q96LX5 homo sapien
29	53.5	29.7	377	3	Q96WX4	Q96WX4 pneumocysti
30	53	29.4	33	4	Q9NRI6	Q9NRI6 homo sapien
31	53	29.4	321	17	Q9YD78	Q9YD78 aeropyrum p
32	53	29.4	530	5	O16850	O16850 caenorhabdi
33	53	29.4	1145	11	Q9DBV3	Q9DBV3 mus musculu
34	52.5	29.2	114	10	Q9XH20	Q9XH20 arabidopsis
35	52	28.9	135	17	Q9V091	Q9V091 pyrococcus
36	52	28.9	342	16	Q9PB65	Q9PB65 xylella fas
37	52	28.9	1333	5	Q9VIN0	Q9VIN0 drosophila
38	51.5	28.6	112	2	Q9L739	Q9L739 bartonella
39	51.5	28.6	684	10	Q9C6G8	Q9C6G8 arabidopsis
40	51	28.3	47	16	Q97Q79	Q97Q79 streptococc
41	51	28.3	192	5	O96280	O96280 plasmodium
42	51	28.3	246	2	Q9ZHW8	Q9ZHW8 pasteurella
43	51	28.3	260	5	O76669	O76669 caenorhabdi
44	51	28.3	267	5	Q95283	Q95283 leishmania
45	50.5	28.1	224	4	Q9BS49	Q9BS49 homo sapien

#### ALIGNMENTS

RESULT 1  
ID Q9TR92 PRELIMINARY: PRT: 34 AA.  
AC Q9TR92;  
DT 01-MAY-2000 (TREMBLrel. 13, Created)  
DT 01-MAY-2000 (TREMBLrel. 13, Last sequence update)  
DT 01-OCT-2001 (TREMBLrel. 18, Last annotation update)  
DE PEPTIDE YY, PYY(3-36).  
OS Oryctolagus cuniculus (Rabbit).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.  
OX NCBI\_TaxID=9986;  
RN [1]  
RP SEQUENCE.  
RX MEDLINE=95075735; PubMed=7984499;  
RA Grandt D., Schimiczek M., Struk K., Shively J., Eysselein V.E.,  
RA Goebell H., Reeve J.R., Jr.;  
RT "Characterization of two forms of peptide YY, PYY(1-36) and PYY(3-36),  
in the rabbit.";  
RL Peptides 15:815-820(1994).  
CC -1- SIMILARITY: BELONGS TO THE NPX / PPY / PYY FAMILY.  
DR HSSP; P01303; IRON.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR ProDom; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANCREATIC\_HORMONE\_2; 1.  
KW Amidation.  
SQ SEQUENCE 34 AA; 4024 MW; 02DAE9C38BA5FC8D CRC64;

Query Match 97.8%; Score 176; DB 6; Length 34;  
Best Local Similarity 100.0%; Pred. No. 5.8e-17;  
Matches 33; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34

## RESULT 2

Q9TR93

ID Q9TR93

PRELIMINARY;

PRT;

36 AA.

AC Q9TR93;

DT 01-MAY-2000 (TREMBLrel. 13, Created)

DT 01-MAY-2000 (TREMBLrel. 13, Last sequence update)

DT 01-OCT-2001 (TREMBLrel. 18, Last annotation update)

DE PEPTIDE Y, PYY(1-36).

OS Oryctolagus cuniculus (Rabbit).

OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.

OX NCBI\_TaxID=9986;

RN [1]

RP SEQUENCE.

RX MEDLINE=95075735; PubMed=7984499;

RA Grandt D., Schimiczek M., Struk K., Shively J., Eysselein V.E.,

RA Goebell H., Reeve J.R.Jr.,

RT "Characterization of two forms of peptide YY, PYY(1-36) and PYY(3-36),

RT in the rabbit."

RL Peptides 15:815-820(1994).

-1- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.

HSSP; P01303; IRON.

Interpro: IPR001955; Pancreatic\_hormn.

PFam: PF00159; hormone3; 1.

PRINTS; PR00278; PANCHORMONE.

Prodom; PD001267; Pancreatic\_hormn; 1.

SMART; SM00309; PAH; 1.

PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.

PROSITE; PS50276; PANCREATIC\_HORMONE\_2; 1.

KW Amidation.

SQ SEQUENCE 36 AA; 4285 MW; 02D499C8086DC8D CRC64;

## Query Match

Best Local Similarity 97.8%; Score 176; DB 6; Length 36;

Matches 33; Conservativity 0; Mismatches 0; Indels 0; Gaps 0;

## QY 2

KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34

KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

## RESULT 3

Q91XD0

ID Q91XD0

PRELIMINARY;

PRT;

98 AA.

AC Q91XD0;

DT 01-DEC-2001 (TREMBLrel. 19, Created)

DT 01-DEC-2001 (TREMBLrel. 19, Last sequence update)

DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)

UNKNOWN (PROTEIN FOR MGC:19143).

OS Mus musculus (Mouse).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

OX NCBI\_TaxID=10090;

RN [1]

RP SEQUENCE FROM N.A.

RC TISSUE=COLON;

RA Strausberg R.;

RL Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.

EMBL; BC010821; AAH10821.1; -

SQ SEQUENCE 98 AA; 11064 MW; 7AF165A1052C3249 CRC64;

## Query Match

Best Local Similarity 95.0%; Score 171; DB 11; Length 98;

Matches 32; Conservativity 1; Mismatches 0; Indels 0; Gaps 0;

## QY 2

KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34

KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 64

## RESULT 4

Q918P2

ID Q918P2

PRELIMINARY;

PRT;

97 AA.

AC Q918P2;

DT 01-OCT-2000 (TREMBLrel. 15, Created)

DT 01-OCT-2000 (TREMBLrel. 15, Last sequence update)

DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)

DE PEPTIDE Y, PRCURSOR.

GN PYY.

OS Brachydanio rerio (Zebrafish) (Zebra danio).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Ostariophysi;

OC Cypriniformes; Cyprinidae; Danio.

OX NCBI\_TaxID=7955;

RN [1]

RP SEQUENCE FROM N.A.

RA Soderberg C., Wraith A., Ringvall M., Yan Y., Postlethwait J.H.,

RA Brodin L., Larhammar D.;

RT "Zebrafish genes for neuropeptide Y and peptide YY reveal origin by

RT chromosome duplication from an ancestral gene linked to the homeobox

RT cluster."

RL Submitted (FEB-2000) to the EMBL/GenBank/DBJ databases.

-1- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.

EMBL; AF233875; AAF79942.1; -

HSSP; P01303; IRON.

ZFIN; ZDB-GENE-980526-71; PYY.

Interpro: IPR001955; Pancreatic\_hormn.

PFam: PF00159; hormone3; 1.

PRINTS; PR00278; PANCHORMONE.

Prodom; PD001267; Pancreatic\_hormn; 1.

SMART; SM00309; PAH; 1.

PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.

PROSITE; PS50276; PANCREATIC\_HORMONE\_2; 1.

KW Amidation; Signal.

FT SIGNAL 1 28 POTENTIAL.

FT CHAIN 29 64 PEPTIDE YY.

SQ SEQUENCE 97 AA; 11175 MW; 96EA07EF0991AC2D CRC64;

## Query Match

Best Local Similarity 79.4%; Score 143; DB 13; Length 97;

Matches 24; Conservativity 6; Mismatches 3; Indels 0; Gaps 0;

## QY 2

KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34

KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 64

## RESULT 5

Q90WF4

ID Q90WF4

PRELIMINARY;

PRT;

99 AA.

AC Q90WF4;

DT 01-DEC-2001 (TREMBLrel. 19, Created)

DT 01-DEC-2001 (TREMBLrel. 19, Last sequence update)

DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)

NEUROPEPTIDE Y.

GN NPY.

OS Paralichthys olivaceus (Flounder).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;

OC Acanthomorpha; Acanthopterygii; Percomorpha; Pleuronectiformes;

OC Pleuronectoidae; Paralichthyidae; Paralichthys.

OX NCBI\_TaxID=8255;

RN [1]

RP SEQUENCE FROM N.A.

RC TISSUE=BRAIN;

RA Kurokawa T., Suzuki T.;

RT "Development of neuropeptide Y related peptides in the digestive

RT organs during the larval stage of Japanese flounder, Paralichthys

RT olivaceus."

RL Submitted (FEB-2001) to the EMBL/GenBank/DBJ databases.

EMBL; AB055211; BAB62409.1; -



SEQUENCE 99 AA; 11215 MW; 6FEED47F24CF6498 CRC64;

Query Match 76.18; Score 137; DB 13; Length 99;  
Best Local Similarity 67.6%; Pred. No. 3.8e-11;  
Matches 23; Conservative 7; Mismatches 4; Indels 0; Gaps 0;

OY 1 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
:|||||:|||||:|||||:|||||:|||||  
Db 31 KPENPGEDAPAEELAKYYSALRHYINLITRQRY 64

RESULT 6 PRELIMINARY; PRT; 95 AA.  
O919D3  
ID O919D3  
AC O919D3;  
DT 01-OCT-2000 (Tremblrel. 15, Created)  
RT 01-OCT-2000 (Tremblrel. 15, Last sequence update)  
DE 01-DEC-2001 (Tremblrel. 19, Last annotation update)  
DE NEUROPEPTIDE Y.  
OS Ictalurus punctatus (Channel catfish).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Ostariophysi;  
OC Siluriformes; Ictaluridae; Ictalurus.  
OX NCBI\_TaxID=7998;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=BRAIN;  
RA Leonard J.B.K., Waldbieser G.C., Silverstein J.T.;  
RT "Neuropeptide Y (NPY) sequence and distribution in channel catfish  
RT (Ictalurus punctatus).";  
RL Submitted (MAY-2000) to the EMBL/GenBank/DBJ databases.  
CC -1- SIMILARITY: BELONGS TO THE NPY / PPY / PYX FAMILY.  
DR EMBL; AF267164; AAF71617.1; .  
DR HSSP; P01303; IRON.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR ProDom; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANGCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANGCREATIC\_HORMONE\_2; 1.  
KW Amidation.  
SQ SEQUENCE 95 AA; 10729 MW; 9AE19EAFBE24C6B5 CRC64;

Query Match 75.68; Score 136; DB 13; Length 95;  
Best Local Similarity 72.7%; Pred. No. 4.9e-11;  
Matches 24; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

OY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
:|||||:|||||:|||||:|||||:|||||  
Db 31 KPENPGEDAPAEELAKYYSALRHYINLITRQRY 63

RESULT 7 PRELIMINARY; PRT; 76 AA.  
O9NOM5  
ID O9NOM5  
AC O9NOM5;  
DT 01-OCT-2000 (Tremblrel. 15, Created)  
RT 01-OCT-2000 (Tremblrel. 15, Last sequence update)  
DE 01-DEC-2001 (Tremblrel. 19, Last annotation update)  
DE PRONEUROPEPTIDE Y (FRAGMENT).  
OS Sus scrofa (Pig).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.  
OX NCBI\_TaxID=9823;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=HYPOTHALAMUS;  
RA Matheri R.L.;  
RL Submitted (MAY-2000) to the EMBL/GenBank/DBJ databases.  
CC -1- SIMILARITY: BELONGS TO THE NPY / PPY / PYX FAMILY.

EMBL; AF264083; AAF72538.1; .  
DR HSSP; P01303; IRON.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR ProDom; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANGCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANGCREATIC\_HORMONE\_2; 1.  
KW Amidation; Neuropeptide.  
FT NON\_TER 1 1  
FT CHAIN 10 >45 NEUROPEPTIDE Y.  
FT NON\_TER 76 76  
SQ SEQUENCE 76 AA; 8596 MW; 84E40EC2A4F94B2C CRC64;

Query Match 74.48; Score 134; DB 6; Length 76;  
Best Local Similarity 69.7%; Pred. No. 7.2e-11;  
Matches 23; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

OY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
:|||||:|||||:|||||:|||||:|||||  
Db 13 KPENPGEDAPAEELAKYYSALRHYINLITRQRY 45

RESULT 8 PRELIMINARY; PRT; 96 AA.  
O9DGK7  
ID O9DGK7  
AC O9DGK7;  
DT 01-MAR-2001 (Tremblrel. 16, Created)  
RT 01-MAR-2001 (Tremblrel. 16, Last sequence update)  
DE 01-DEC-2001 (Tremblrel. 19, Last annotation update)  
DE NEUROPEPTIDE Y.  
OS Cyprinus carpio (Common carp).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Ostariophysi;  
OC Cypriniformes; Cyprinidae; Cyprinus.  
OX NCBI\_TaxID=7962;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=BRAIN;  
RA yingwen L., Takeshi Y.;  
RT "Daily rhythmic gene expression of neuropeptide Y in discrete brain of  
RT common carp, Cyprinus carpio, under the condition of self feeding.";  
RL Submitted (JUL-2000) to the EMBL/GenBank/DBJ databases.  
CC -1- SIMILARITY: BELONGS TO THE NPY / PPY / PYX FAMILY.  
DR EMBL; AF287347; AAG00549.1; .  
DR HSSP; P01303; IRON.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR ProDom; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANGCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANGCREATIC\_HORMONE\_2; 1.  
KW Amidation.  
SQ SEQUENCE 96 AA; 10987 MW; C6C5ABCD87688980 CRC64;

Query Match 74.48; Score 134; DB 13; Length 96;  
Best Local Similarity 69.7%; Pred. No. 9.3e-11;  
Matches 23; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

OY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
:|||||:|||||:|||||:|||||:|||||  
Db 32 KPENPGEDAPAEELAKYYSALRHYINLITRQRY 64

RESULT 9 PRELIMINARY; PRT; 96 AA.  
O918P3  
ID O918P3  
AC O918P3;  
DT 01-OCT-2000 (Tremblrel. 15, Created)

DT 01-OCT-2000 (TREMBLrel. 15, last sequence update)  
DT 01-DEC-2001 (TREMBLrel. 19, last annotation update)  
DE NEUROPEPTIDE Y PRECURSOR.  
GN NPY.  
OS Brachydanio rerio (zebrafish) (Zebra danio).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Ostariophysi;  
OC Cypriniformes; Cyprinidae; Danio.  
OX NCBI\_TaxID=7955;  
RN [1]  
RP SEQUENCE FROM N.A.  
RA Soderberg C., Wraith A., Ringvall M., Yan Y., Postlethwait J.H.,  
RA Brodin L., Larhammar D.;  
RT "zebrafish genes for neuropeptide Y and peptide YY reveal origin by  
RT chromosome duplication from an ancestral gene linked to the homeobox  
RT cluster."  
RL Submitted (FEB-2000) to the EMBL/GenBank/DBJ databases.  
CC -1- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.  
DR EMBL; AF233874; AAF79941.1; -.  
DR HSSP; P01303; IRON.  
DR ZFIN; ZDB-GENE-980526-438; npy.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR ProDom; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANCREATIC\_HORMONE\_2; 1.  
KW Amidation; Signal.  
FT SIGNAL 1 28 POTENTIAL.  
FT CHAIN 29 64 NEUROPEPTIDE Y.  
SQ SEQUENCE 96 AA; 11031 MW; 4D82A025C8151E33 CRC64;

Query Match 74.4%; Score 134; DB 13; Length 96;  
Best Local Similarity 69.7%; Pred. No. 9.3e-11;  
Matches 23; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 32 KPDPNGEDAPAEELAKYYSALRHYINLITRQRY 64

RESULT 10  
Q9XSW6 PRELIMINARY; PRT; 97 AA.  
AC Q9XSW6;  
DT 01-NOV-1999 (TREMBLrel. 12, Created)  
DT 01-NOV-1999 (TREMBLrel. 12, last sequence update)  
DT 01-DEC-2001 (TREMBLrel. 19, last annotation update)  
DE NEUROPEPTIDE Y.  
GN NPY.  
OS Macaca mulatta (Rhesus macaque).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopitheciidae;  
OC Cercopitheciinae; Macaca.  
OX NCBI\_TaxID=9544;  
RN [1]  
RP SEQUENCE FROM N.A.  
RA Adler L.A., Golos T.G., Terasawa E.;  
RT "Developmental changes in NPY mRNA expression in female rhesus  
RT monkeys."  
RL Submitted (JUN-1999) to the EMBL/GenBank/DBJ databases.  
CC -1- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.  
DR EMBL; AF162280; AAD43583.1; -.  
DR HSSP; P01303; IRON.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR ProDom; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANCREATIC\_HORMONE\_2; 1.

KW Amidation.  
SQ SEQUENCE 97 AA; 10840 MW; 2D2209BAC20BD5EE CRC64;

Query Match 73.3%; Score 132; DB 6; Length 97;  
Best Local Similarity 66.7%; Pred. No. 1.8e-10;  
Matches 22; Conservative 7; Mismatches 4; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 32 KPDPNGEDAPAEEDMARYSALRHYINLITRQRY 64

RESULT 11  
Q925V2 PRELIMINARY; PRT; 89 AA.  
ID Q925V2;  
AC Q925V2;  
DT 01-DEC-2001 (TREMBLrel. 19, Created)  
DT 01-DEC-2001 (TREMBLrel. 19, last sequence update)  
DT 01-DEC-2001 (TREMBLrel. 19, last annotation update)  
DE NEUROPEPTIDE Y (FRAGMENT).  
OS Mus musculus (Mouse).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
OX NCBI\_TaxID=10090;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=SM/J;  
RX MEDLINE=21077529; PubMed=11210195;  
RA Taylor B.A., Wnek C., Schroeder D., Phillips S.J.;  
RT "Multiple obesity QTLs identified in an intercross between the NZO  
RT (New Zealand obese) and the SM (small) mouse strains."  
RL Mamm. Genome 12:95-103(2001).  
DR EMBL; AF286198; AAG01330.1; -.  
FT NON\_TER 89  
SQ SEQUENCE 89 AA; 9943 MW; AF6052615A59D96A CRC64;

Query Match 72.8%; Score 131; DB 11; Length 89;  
Best Local Similarity 66.7%; Pred. No. 2.2e-10;  
Matches 22; Conservative 7; Mismatches 4; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 32 KPDPNGEDAPREDMARYSALRHYINLITRQRY 64

RESULT 12  
Q9TST6 PRELIMINARY; PRT; 90 AA.  
ID Q9TST6;  
AC Q9TST6;  
DT 01-MAY-2000 (TREMBLrel. 13, Created)  
DT 01-MAY-2000 (TREMBLrel. 13, last sequence update)  
DT 01-DEC-2001 (TREMBLrel. 19, last annotation update)  
DE NEUROPEPTIDE Y (FRAGMENT).  
OS Ovis aries (Sheep).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;  
OC Bovidae; Caprinae; Ovis.  
OX NCBI\_TaxID=9940;  
RN [1]  
RP SEQUENCE FROM N.A.  
RA Simmons J.M., Daniel J.A., Matteri R.L., Keisler D.H.;  
RL Submitted (SEP-1998) to the EMBL/GenBank/DBJ databases.  
CC -1- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.  
DR EMBL; AF095782; AAC69886.1; -.  
DR HSSP; P01303; IRON.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR ProDom; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.







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OM protein - protein search, using sw model

Run on: July 30, 2002, 08:01:04 ; Search time 25.26 Seconds  
(without alignments)  
129.336 Million cell updates/sec

Title: US-10-016-969-3  
Perfect score: 180  
Sequence: 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

arched: 283138 segs, 96089334 residues

Total number of hits satisfying chosen parameters: 283138

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database :  
1: pir1:\*  
2: pir2:\*  
3: pir3:\*  
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	180	100.0	36	2	A31358	peptide YY - human
2	180	100.0	90	2	S34569	peptide YY precurs
3	180	100.0	90	2	S34568	peptide YY precurs
4	180	100.0	97	2	S33795	peptide YY (clone
5	171	95.0	36	1	YYPG	peptide YY - pig
6	171	95.0	36	2	A60416	peptide YY - dog
7	171	95.0	98	2	A29364	peptide YY precurs
8	155	86.1	97	2	A55914	peptide YY precurs
9	145	80.6	36	1	PCGXA	pancreatic peptide
10	145	80.6	36	1	PCDFY	pancreatic peptide
11	145	80.6	36	2	A49743	pancreatic peptide
12	144	80.0	36	2	A26377	pancreatic peptide
13	138	76.7	36	2	S27054	pancreatic peptide
14	136	75.6	37	2	S26954	peptide YY-related
15	135	75.0	97	2	A41979	peptide YY-related
16	134	74.4	36	1	NYPGY	neuropeptide Y - p
17	132	73.3	36	2	A30485	neuropeptide Y - r
18	132	73.3	36	2	B30485	neuropeptide Y - g
19	132	73.3	97	1	NYHUY	neuropeptide Y pre
20	132	73.3	98	2	A25916	neuropeptide Y pre
21	131	72.8	36	2	S07052	neuropeptide Y - s
22	129	71.7	36	2	A48540	neuropeptide Y - c
23	129	71.7	36	2	A39393	neuropeptide Y - l
24	129	71.7	97	2	JC1460	neuropeptide Y pre
25	128	71.1	93	2	I50809	peptide YY - river
26	127	70.6	96	2	B41979	neuropeptide Y pre
27	126	70.0	104	2	I50808	neuropeptide Y pre
28	124	68.9	98	2	C41979	neuropeptide Y pre
29	122	67.8	36	1	YVFIS	peptide YY - short

30	121	67.2	37	2	A26781	peptide YG - Ameri
31	118	65.6	36	2	S16943	neuropeptide Y - s
32	106	58.9	36	1	PCBO	pancreatic hormone
33	106	58.9	59	1	PCSH	pancreatic hormone
34	104	57.8	36	1	PCPG	pancreatic hormone
35	104	57.8	93	1	PCDG	pancreatic hormone
36	99	55.0	36	1	C61132	pancreatic hormone
37	99	55.0	36	2	J00365	pancreatic hormone
38	99	55.0	36	2	C60071	pancreatic hormone
39	99	55.0	66	1	PCCF	pancreatic hormone
40	99	55.0	95	1	PCHU	pancreatic hormone
41	99	55.0	126	2	A28256	pancreatic hormone
42	98	54.4	36	1	A61132	pancreatic hormone
43	98	54.4	36	1	D61132	pancreatic hormone
44	98	54.4	36	2	A28578	pancreatic hormone
45	97	53.9	36	2	B60413	pancreatic hormone

## ALIGNMENTS

RESULT 1  
A31358  
peptide YY - human  
C;Species: Homo sapiens (man)  
C;Date: 31-Mar-1990 #sequence\_revision 31-Dec-1991 #text\_change 17-Mar-1999  
C;Accession: A31358; A60676  
R;Tatemoto, K.; Nakano, I.; Makk, G.; Angwin, P.; Mann, M.; Schilling, J.; Go, V.L.W.  
Biochem. Biophys. Res. Commun. 157, 713-717, 1988  
A;Title: Isolation and primary structure of human peptide YY.  
A;Reference number: A31358; MUID:89076307  
A;Accession: A31358  
A;Molecule type: protein  
A;Residues: 1-36 <TAT>  
A;Experimental source: colon  
R;Eberlein, G.A.; Eysselein, V.E.; Schaeffer, M.; Layer, P.; Grandt, D.; Goebell, H.;  
Peptides 10, 797-803, 1989  
A;Title: A new molecular form of PYY: structural characterization of human PYY(3-36)  
A;Reference number: A60676; MUID:90068171  
A;Accession: A60676  
A;Molecule type: protein  
A;Residues: 1-36 <EBE>  
C;Superfamily: pancreatic hormone  
C;Keywords: amidated carboxyl end; intestine; neuropeptide  
F;36/Modified site: amidated carboxyl end (Tyr) #status experimental

Query Match 100.0%; Score 180; DB 2; Length 36;  
Best Local Similarity 100.0%; Pred. No. 9.8e-18;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 3 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

RESULT 2  
S34569  
peptide YY precursor (clone L2) - human (fragment)  
C;Species: Homo sapiens (man)  
C;Date: 02-Dec-1993 #sequence\_revision 13-Mar-1997 #text\_change 09-May-1997  
C;Accession: S34569  
R;Kohri, K.; Nata, K.; Yonekura, H.; Nagai, A.; Konno, K.; Okamoto, H.  
Biochim. Biophys. Acta 1173, 345-349, 1993  
A;Title: Cloning and structural determination of human peptide YY cDNA and gene.  
A;Reference number: S33795; MUID:93305732  
A;Accession: S34569  
A;Status: preliminary  
A;Molecule type: mRNA  
A;Residues: 1-90 <KOH>  
C;Superfamily: pancreatic hormone

Query Match 100.0%; Score 180; DB 2; Length 90;  
Best Local Similarity 100.0%; Pred. No. 2.8e-17;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
Db 31 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 64

RESULT 3  
S34568  
peptide YY precursor (clone L1) - human (fragment)  
C:Species: Homo sapiens (man)  
C:Date: 02-Dec-1993 #sequence\_revision 13-Mar-1997 #text\_change 09-May-1997  
C:Accession: S34568  
R:Kohri, K.; Nata, K.; Yonekura, H.; Nagai, A.; Konno, K.; Okamoto, H.  
Biochim. Biophys. Acta 1173, 345-349, 1993  
A:Title: Cloning and structural determination of human peptide YY cDNA and gene.  
A:Reference number: S33795; MUID:93305732  
A:Accession: S34568  
A:Status: preliminary  
A:Molecule type: mRNA  
A:Residues: 1-90 <KOH>  
Superfamily: pancreatic hormone

Query Match 100.0%; Score 180; DB 2; Length 90;  
Best Local Similarity 100.0%; Pred. No. 2.8e-17;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
Db 31 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 64

RESULT 4  
S33795  
peptide YY (clone S) - human  
C:Species: Homo sapiens (man)  
C:Date: 19-Mar-1997 #sequence\_revision 19-Mar-1997 #text\_change 20-Jun-2000  
C:Accession: S33795  
R:Kohri, K.; Nata, K.; Yonekura, H.; Nagai, A.; Konno, K.; Okamoto, H.  
Biochim. Biophys. Acta 1173, 345-349, 1993  
A:Title: Cloning and structural determination of human peptide YY cDNA and gene.  
A:Reference number: S33795; MUID:93305732  
A:Accession: S33795  
A:Status: preliminary  
A:Molecule type: mRNA  
A:Residues: 1-97 <KOH>  
A:Cross-references: GB:D13897; NID:g391723; PIDN:BAA02997.1; PID:g391724  
Superfamily: pancreatic hormone

Query Match 100.0%; Score 180; DB 2; Length 97;  
Best Local Similarity 100.0%; Pred. No. 3e-17;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
Db 31 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 64

RESULT 5  
YYPG  
peptide YY - pig  
C:Species: Sus scrofa domestica (domestic pig)  
C:Date: 30-Apr-1982 #sequence\_revision 30-Apr-1982 #text\_change 23-Aug-1996  
C:Accession: A01574  
R:Tatemoto, K.  
Proc. Natl. Acad. Sci. U.S.A. 79, 2514-2518, 1982  
A:Title: Isolation and characterization of peptide YY (PYY), a candidate gut hormone the  
A:Reference number: A01574; MUID:822222168  
A:Accession: A01574

A:Molecule type: protein  
A:Residues: 1-36 <TAT>  
C:Superfamily: pancreatic hormone  
C:Keywords: amidated carboxyl end; hormone  
F:36/Modified site: amidated carboxyl end (Tyr) #status experimental

Query Match 95.0%; Score 171; DB 1; Length 36;  
Best Local Similarity 97.0%; Pred. No. 1.6e-16;  
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
Db 4 KPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 36

RESULT 6  
A60416  
peptide YY - dog  
C:Species: Canis lupus familiaris (dog)  
C:Date: 11-Feb-1993 #sequence\_revision 11-Feb-1993 #text\_change 17-Mar-1999  
C:Accession: A60416  
R:Eysselein, V.E.; Eberlein, G.A.; Grandt, D.; Schaeffer, M.; Zehres, B.; Behn, U.; S  
peptides 11, 111-116, 1990  
A:Title: Structural characterization of canine PYY.  
A:Reference number: A60416; MUID:90259843  
A:Accession: A60416  
A:Molecule type: protein  
A:Residues: 1-36 <EYS>  
C:Superfamily: pancreatic hormone  
C:Keywords: amidated carboxyl end; hormone; intestine  
F:36/Modified site: amidated carboxyl end (Tyr) #status experimental

Query Match 95.0%; Score 171; DB 2; Length 36;  
Best Local Similarity 97.0%; Pred. No. 1.6e-16;  
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
Db 4 KPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 36

RESULT 7  
A29364  
peptide YY precursor - rat  
C:Species: Rattus norvegicus (Norway rat)  
C:Date: 31-Dec-1988 #sequence\_revision 31-Dec-1988 #text\_change 16-Jul-1999  
C:Accession: A37955; A29364; JT0416  
R:Krasinski, S.D.; Wheeler, M.B.; Leiter, A.B.  
Mol. Endocrinol. 5, 433-440, 1991  
A:Title: Isolation, characterization, and developmental expression of the rat peptide  
A:Reference number: A37955; MUID:91367188  
A:Accession: A37955  
A:Status: preliminary  
A:Molecule type: DNA  
A:Residues: 1-98 <KRA>  
A:Cross-references: GB:S57220; NID:g235283; PIDN:AAB19752.1; PID:g235284  
R:Leiter, A.B.; Toder, A.; Wolfe, H.J.; Taylor, I.L.; Cooperman, S.; Mandel, G.; Good  
J. Biol. Chem. 262, 12984-12988, 1987  
A:Title: Peptide YY. Structure of the precursor and expression in exocrine pancreas.  
A:Reference number: A29364; MUID:88007492  
A:Accession: A29364  
A:Molecule type: mRNA  
A:Residues: 1-98 <LEI>  
A:Cross-references: GB:M17523; NID:g204316; PIDN:AAA41222.1; PID:g204317  
R:Corder, R.; Gaillard, R.C.; Boehlen, P.  
Regul. Pept. 21, 253-261, 1988  
A:Title: Isolation and sequence of rat peptide YY and neuropeptide Y.  
A:Reference number: JT0416; MUID:88321122  
A:Accession: JT0416  
A:Molecule type: protein  
A:Residues: 29-64 <COR>



A:Experimental source: colon  
C:Superfamily: pancreatic hormone

Query Match 95.0%; Score 171; DB 2; Length 98;  
Best Local Similarity 97.0%; Pred. No. 5.1e-16;  
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
Db 32 KPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 64

RESULT 8  
A55914  
peptide YY precursor - bovine  
C:Species: Bos primigenius taurus (cattle)  
Date: 23-Mar-1995 #sequence\_revision 05-Apr-1995 #text\_change 16-Jul-1999  
Accession: A55914  
K:Herzog, H.; Hott, Y.; Schneider, R.; Shine, J.  
Proc. Natl. Acad. Sci. U.S.A. 92, 594-598, 1995  
A:Title: Seminalplasma: recent evolution of another member of the neuropeptide Y gene  
A:Reference number: A55914; MUID:95132646  
A:Accession: A55914  
A:Status: preliminary  
A:Molecule type: DNA  
A:Residues: 1-97 <HER>  
A:Cross-references: GB:L37369; NID:g565219; PIDN:AAC37326.1; PID:g567100  
C:Genetics:  
A:Introns: 63/2; 90/2  
C:Superfamily: pancreatic hormone  
C:Keywords: neuropeptide

Query Match 86.1%; Score 155; DB 2; Length 97;  
Best Local Similarity 84.8%; Pred. No. 7.4e-14;  
Matches 28; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
||:|||||  
Db 32 KPQAPGEHASPDELNRYTSLRHYLNLVTRQRF 64

RESULT 9  
PCGXA

pancreatic peptide Y - alligator gar  
Alternate names: pancreatic hormone Y  
C:Species: Lepisosteus spatula (alligator gar)  
C:Date: 30-Jun-1991 #sequence\_revision 30-Jun-1991 #text\_change 06-Dec-1996  
C:Accession: S07215  
R:Pollock, H.G.; Kimmel, J.R.; Hamilton, J.W.; Rouse, J.B.; Ebner, K.E.; Lance, V.; Ravi  
Gen. Comp. Endocrinol. 67, 375-382, 1987  
A:Title: Isolation and structures of alligator gar (Lepisosteus spatula) insulin and par  
A:Reference number: S07215; MUID:88030594  
A:Accession: S07215  
A:Molecule type: protein  
A:Residues: 1-36 <POL>  
C:Superfamily: pancreatic hormone  
C:Keywords: amidated carboxyl end; hormone; pancreas  
F;1-36/Product: pancreatic peptide Y #status experimental <PCH>  
F;36/Modified site: amidated carboxyl end (Tyr) #status experimental

Query Match 80.6%; Score 145; DB 1; Length 36;  
Best Local Similarity 75.8%; Pred. No. 5.4e-13;  
Matches 25; Conservative 5; Mismatches 3; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||  
Db 4 KPENPGEDAPPEELAKYYSALRHYINLITRQRY 36

RESULT 10

PCDFY

pancreatic peptide Y - spiny dogfish  
N:Alternate names: pancreatic hormone Y  
C:Species: Squalus acanthias (spiny dogfish)  
C:Date: 31-Mar-1993 #sequence\_revision 31-Mar-1993 #text\_change 16-Jun-2000  
C:Accession: A60022; A56893  
R:Pan, J.Z.; Shaw, C.; Halton, D.W.; Thim, L.; Johnston, C.F.; Fairweather, I.; Bucha  
Regul. Pept. 35, 252, 1991  
A:Title: Isolation and primary structure of peptide Y from the pancreas of the spiny  
A:Reference number: A60022  
A:Accession: A60022  
A:Molecule type: protein  
A:Residues: 1-36 <PAN1>  
A>Note: this reference is an abstract  
R:Pan, J.Z.; Shaw, C.; Halton, D.W.; Thim, L.; Johnston, C.F.; Buchanan, K.D.  
Comp. Biochem. Physiol. B 102, 1-5, 1992  
A:Title: The primary structure of peptide Y (PY) of the spiny dogfish, Squalus acanth  
A:Reference number: A56893; MUID:92405520  
A:Accession: A56893  
A:Molecule type: protein  
A:Residues: 1-36 <PAN2>  
A:Experimental source: pancreas  
A>Note: sequence extracted from NCBI backbone (NCBIP:114876)  
C:Superfamily: pancreatic hormone  
C:Keywords: amidated carboxyl end; hormone; pancreas  
F;1-36/Product: pancreatic peptide Y #status experimental <MAT>  
F;36/Modified site: amidated carboxyl end (Tyr) #status experimental

Query Match 80.6%; Score 145; DB 1; Length 36;  
Best Local Similarity 75.8%; Pred. No. 5.4e-13;  
Matches 25; Conservative 5; Mismatches 3; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||  
Db 4 KPENPGEDAPPEELAKYYSALRHYINLITRQRY 36

RESULT 11

pancreatic peptide Y - smaller spotted catshark  
N:Alternate names: neuropeptide Y-related peptide  
C:Species: Scyliorhinus canicula (smaller spotted catshark, smaller spotted dogfish)  
C:Date: 07-Apr-1994 #sequence\_revision 07-Apr-1994 #text\_change 07-May-1999  
C:Accession: A49743  
R:Conlon, J.M.; Balasubramaniam, A.; Hazon, N.  
Endocrinology 128, 2273-2279, 1991  
A:Title: Structural characterization and biological activity of a neuropeptide Y-rela  
A:Reference number: A49743; MUID:91209266  
A:Accession: A49743  
A:Status: preliminary  
A:Molecule type: protein  
A:Residues: 1-36 <CON>  
C:Superfamily: pancreatic hormone  
C:Keywords: amidated carboxyl end; hormone  
F;1-36/Product: pancreatic peptide Y #status experimental <MAT>  
F;36/Modified site: amidated carboxyl end (Tyr) #status experimental

Query Match 80.6%; Score 145; DB 2; Length 36;  
Best Local Similarity 75.8%; Pred. No. 5.4e-13;  
Matches 25; Conservative 5; Mismatches 3; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||  
Db 4 KPENPGEDAPPEELAKYYSALRHYINLITRQRY 36

RESULT 12

pancreatic peptide Y - coho salmon  
A26377  
C:Species: Oncorhynchus kisutch (coho salmon)  
C:Date: 31-Mar-1988 #sequence\_revision 31-Mar-1988 #text\_change 06-Dec-1996

C;Accession: A26377  
R;Kimmel, J.R.; Plisetskaya, E.M.; Pollock, H.G.; Hamilton, J.W.; Rouse, J.B.; Ebner, K.  
Biochem. Biophys. Res. Commun. 141, 1084-1091, 1986  
A;Title: Structure of a peptide from coho salmon endocrine pancreas with homology to neu  
A;Reference number: A26377; MUID:87128023  
A;Accession: A26377  
A;Molecule type: protein  
A;Residues: 1-36 <KIM>  
A;Experimental source: pancreas  
C;Superfamily: pancreatic hormone

Query Match 80.0%; Score 144; DB 2; Length 36;  
Best Local Similarity 75.8%; Pred. No. 7.4e-13;  
Matches 25; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
||| ||||| ||| :|| :||||:|||||  
Db 4 KPENPGEDAPPELAKYTTALRHYINLITRQRY 36

## RESULT 13

Neuropeptide Y - Atlantic cod  
C;Species: Gadus morhua (Atlantic cod)  
C;Date: 19-Mar-1997 #sequence\_revision 19-Mar-1997 #text\_change 31-Oct-1997  
C;Accession: S27054  
R;Jensen, J.; Conlon, J.M.  
Eur. J. Biochem. 210, 405-410, 1992  
A;Title: Characterization of peptides related to neuropeptide tyrosine and peptide tyros  
A;Reference number: S27054; MUID:93092973  
A;Accession: S27054  
A;Status: preliminary  
A;Molecule type: protein  
A;Residues: 1-36 <JEN>  
C;Superfamily: pancreatic hormone

Query Match 76.7%; Score 138; DB 2; Length 36;  
Best Local Similarity 70.6%; Pred. No. 4.8e-12;  
Matches 24; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
||| ||||| :|| :||:||||:|||||  
Db 3 IKPENPGEDAPADELAKYYSALRHYINLITRQRY 36

## RESULT 14

peptide YY-related protein, intestinal - chicken  
A;Alternate names: neuropeptide Y homolog; peptide tyrosine-tyrosine-related protein  
C;Species: Gallus gallus (chicken)  
C;Date: 22-Nov-1993 #sequence\_revision 10-Nov-1995 #text\_change 07-Feb-1997  
C;Accession: S26954  
R;Conlon, J.M.; O'Harte, F.  
FEBS Lett. 313, 225-228, 1992  
A;Title: The primary structure of a PYV-related peptide from chicken intestine suggests  
A;Reference number: S26954; MUID:93076900  
A;Accession: S26954  
A;Molecule type: protein  
A;Residues: 1-37 <CON>  
C;Superfamily: pancreatic hormone  
C;Keywords: amidated carboxyl end; hormone; intestine; neuropeptide

Query Match 75.6%; Score 136; DB 2; Length 37;  
Best Local Similarity 69.7%; Pred. No. 9.3e-12;  
Matches 23; Conservative 8; Mismatches 2; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
||| ||||| :|| :||:||||:|||||  
Db 5 KPESPGDASPEEIAQYFSALRHYINLITRQRY 37

## RESULT 15

neuropeptide Y precursor - chicken  
A;Accession: A41979  
C;Species: Gallus gallus (chicken)  
C;Date: 31-Dec-1993 #sequence\_revision 31-Dec-1993 #text\_change 21-Jul-2000  
C;Accession: A41979  
R;Blomqvist, A.G.; Soderberg, C.; Lundell, I.; Milner, R.J.; Larhammar, D.  
Proc. Natl. Acad. Sci. U.S.A. 89, 2350-2354, 1992  
A;Title: Strong evolutionary conservation of neuropeptide Y: sequences of chicken, go  
A;Reference number: A41979; MUID:92196116  
A;Accession: A41979  
A;Status: preliminary  
A;Molecule type: mRNA  
A;Residues: 1-97 <BLO>  
A;Cross-references: GB:M87294; NID:g212458; PIDN:AAA48991.1; PID:g212459  
A;Experimental source: central nervous system  
A;Note: sequence extracted from NCBI backbone (NCBIP:88404)  
C;Function:  
A;Description: neuropeptide inducing a number of behavioral effects including stimuli  
C;Superfamily: pancreatic hormone  
C;Keywords: amidated carboxyl end; appetite; hormone; neuropeptide  
F;1-28/Domain: signal sequence #status predicted <SIG>  
F;29-64/Product: neuropeptide Y #status predicted <MAT>  
F;65-97/Domain: carboxyl-terminal propeptide #status predicted <CTP>  
F;64/Modified site: amidated carboxyl end (Tyr) (amide in mature form from following

Query Match 75.0%; Score 135; DB 2; Length 97;  
Best Local Similarity 66.7%; Pred. No. 3.8e-11;  
Matches 22; Conservative 8; Mismatches 3; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
||:||||| |::|||:||||:|||||  
Db 32 KPDSPGEDAPAEDEMARYSALRHYINLITRQRY 64

Search completed: July 30, 2002, 08:01:04  
Job time: 92 sec

Tue Jul 30 10:09:20 2002

us-10-016-969-3.rpr

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GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: July 30, 2002, 07:59:32 ; Search time 25.26 seconds  
(without alignments)  
136.944 Million cell updates/sec

Title: US-10-016-969-2  
Perfect score: 194  
Sequence: 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 283138 seqs, 96089334 residues

Total number of hits satisfying chosen parameters: 283138

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : PIR\_71:\*  
1: pir1:\*  
2: pir2:\*  
3: pir3:\*  
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	194	100.0	36	2	A31358	peptide YV - human
2	194	100.0	90	2	S34569	peptide YV precurs
3	194	100.0	90	2	S34568	peptide YV precurs
4	194	100.0	97	2	S33795	peptide YV (clone
5	184	94.8	36	1	YYPG	peptide YV - pig
6	184	94.8	36	2	A60416	peptide YV - dog
7	184	94.8	98	2	A29364	peptide YV precurs
8	168	86.6	97	2	A55914	peptide YV precurs
9	156	80.4	36	1	PCGXA	pancreatic peptide
10	156	80.4	36	1	PCDFY	pancreatic peptide
11	156	80.4	36	2	A49743	pancreatic peptide
12	155	79.9	36	2	A26377	pancreatic peptide
13	152	78.4	36	2	S27054	pancreatic peptide
14	147	75.8	37	2	S26954	peptide YV-related
15	147	75.8	97	2	A41979	neuropeptide Y pre
16	146	75.3	36	1	NYPGY	neuropeptide Y - p
17	144	74.2	36	2	A30485	neuropeptide Y - r
18	144	74.2	36	2	B30485	neuropeptide Y - g
19	144	74.2	97	1	NYHUY	neuropeptide Y pre
20	144	74.2	98	2	A25916	neuropeptide Y pre
21	143	73.7	36	2	S07052	neuropeptide Y - s
22	141	72.7	36	2	A48540	neuropeptide Y - c
23	141	72.7	36	2	A39393	neuropeptide Y - l
24	141	72.7	97	2	JC1460	neuropeptide Y pre
25	140	72.2	96	2	B41979	neuropeptide Y pre
26	136	70.1	98	2	C41979	neuropeptide Y pre
27	135	69.6	93	2	I50809	peptide YV - liver
28	133	68.6	36	1	YFIS	peptide YV - short
29	133	68.6	104	2	I50808	neuropeptide Y pre

30	132	68.0	37	2	A26781	peptide YG - Ameri
31	122	62.9	36	2	S16943	neuropeptide Y - s
32	113	58.2	36	1	PCBO	pancreatic hormone
33	111	57.2	36	1	PCPG	pancreatic hormone
34	111	57.2	93	1	PCDG	pancreatic hormone
35	106	54.6	36	1	C61132	pancreatic hormone
36	106	54.6	36	2	C60071	pancreatic hormone
37	106	54.6	59	1	PCSH	pancreatic hormone
38	106	54.6	66	1	PCCT	pancreatic hormone
39	106	54.6	95	1	PCHU	pancreatic hormone
40	106	54.6	126	2	A28256	pancreatic hormone
41	105	54.1	36	1	A61132	pancreatic hormone
42	105	54.1	36	1	D61132	pancreatic hormone
43	104	53.6	36	2	B60413	pancreatic hormone
44	104	53.6	36	2	A28578	pancreatic hormone
45	103	53.1	36	2	JQ0365	pancreatic hormone

## ALIGNMENTS

RESULT 1  
A31358  
peptide YV - human  
C/Species: Homo sapiens (man)  
C/Date: 31-Mar-1990 #sequence\_revision 31-Dec-1991 #text\_change 17-Mar-1999  
C/Accession: A31358; A60676  
R/Tatemoto, K.; Nakano, I.; Makk, G.; Angwin, P.; Mann, M.; Schilling, J.; Go, V.L.W.  
Biochem. Biophys. Res. Commun. 157, 713-717, 1988  
A/Title: Isolation and primary structure of human peptide YV.  
A/Reference number: A31358; MUID:89076307  
A/Accession: A31358  
A/Molecule type: protein  
A/Residues: 1-36 <TAT>  
A/Experimental source: colon  
R/Eberlein, G.A.; Eysselein, V.E.; Schaeffer, M.; Layer, P.; Grandt, D.; Goebel, H.;  
Peptides 10, 797-803, 1989  
A/Title: A new molecular form of PYV: structural characterization of human PYV(3-36)  
A/Reference number: A60676; MUID:90068171  
A/Accession: A60676  
A/Molecule type: protein  
A/Residues: 1-36 <EBE>  
C/Superfamily: pancreatic hormone  
C/Keywords: amidated carboxyl end; intestine; neuropeptide  
F;36/Modified site: amidated carboxyl end (Tyr) #status experimental

Query Match 100.0%; Score 194; DB 2; Length 36;  
Best Local Similarity 100.0%; Pred. No. 5e-19;  
Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
Db 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

RESULT 2  
S34569  
peptide YV precursor (clone L2) - human (fragment)  
C/Species: Homo sapiens (man)  
C/Date: 02-Dec-1993 #sequence\_revision 13-Mar-1997 #text\_change 09-May-1997  
R/Kohri, K.; Nata, K.; Yonekura, H.; Nagai, A.; Konno, K.; Okamoto, H.  
Biochim. Biophys. Acta 1173, 345-349, 1993  
A/Title: Cloning and structural determination of human peptide YV cDNA and gene.  
A/Reference number: S33795; MUID:93305732  
A/Accession: S34569  
A/Status: preliminary  
A/Molecule type: mRNA  
A/Residues: 1-90 <KOH>  
C/Superfamily: pancreatic hormone

Query Match 100.0%; Score 194; DB 2; Length 90;  
Best Local Similarity 100.0%; Pred. No. 1.4e-18;  
Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
|||  
Db 29 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 64

RESULT 3  
S34568

peptide YY precursor (clone L1) - human (fragment)

C:Species: Homo sapiens (man)

C:Date: 02-Dec-1993 #sequence\_revision 13-Mar-1997 #text\_change 09-May-1997

C:Accession: S34568

R:Kohri, K.; Nata, K.; Yonekura, H.; Nagai, A.; Konno, K.; Okamoto, H.

Biochim. Biophys. Acta 1173, 345-349, 1993

A:Title: Cloning and structural determination of human peptide YY cDNA and gene.

A:Reference number: S33795; MUID:93305732

A:Accession: S34568

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-90 <KOH>

Superfamily: pancreatic hormone

Query Match 100.0%; Score 194; DB 2; Length 90;  
Best Local Similarity 100.0%; Pred. No. 1.4e-18;  
Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
|||  
Db 29 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 64

RESULT 4  
S33795

peptide YY (clone S) - human

C:Species: Homo sapiens (man)

C:Date: 19-Mar-1997 #sequence\_revision 19-Mar-1997 #text\_change 20-Jun-2000

C:Accession: S33795

R:Kohri, K.; Nata, K.; Yonekura, H.; Nagai, A.; Konno, K.; Okamoto, H.

Biochim. Biophys. Acta 1173, 345-349, 1993

A:Title: Cloning and structural determination of human peptide YY cDNA and gene.

A:Reference number: S33795; MUID:93305732

A:Accession: S33795

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-97 <KOH>

A:Cross-references: GB:D13897; NID:g391723; PIDN:BAA02997.1; PID:g391724  
Superfamily: pancreatic hormone

Query Match 100.0%; Score 194; DB 2; Length 97;  
Best Local Similarity 100.0%; Pred. No. 1.5e-18;  
Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
|||  
Db 29 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 64

RESULT 5  
YYPG

peptide YY - pig

C:Species: Sus scrofa domestica (domestic pig)

C:Date: 30-Apr-1982 #sequence\_revision 30-Apr-1982 #text\_change 23-Aug-1996

C:Accession: A01574

R:Tatemoto, K.

Proc. Natl. Acad. Sci. U.S.A. 79, 2514-2518, 1982

A:Title: Isolation and characterization of peptide YY (PYY), a candidate gut hormone the

A:Reference number: A01574; MUID:82222168

A:Accession: A01574

A:Molecule type: protein  
A:Residues: 1-36 <TAT>  
C:Superfamily: pancreatic hormone  
C:Keywords: amidated carboxyl end; hormone  
F:36/Modified site: amidated carboxyl end (Tyr) #status experimental

Query Match 94.8%; Score 184; DB 1; Length 36;  
Best Local Similarity 94.4%; Pred. No. 1e-17;  
Matches 34; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
|||  
Db 1 YPAKPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 36

RESULT 6  
A60416

peptide YY - dog

C:Species: Canis lupus familiaris (dog)

C:Date: 11-Feb-1993 #sequence\_revision 11-Feb-1993 #text\_change 17-Mar-1999

C:Accession: A60416

R:Eysselein, V.E.; Eberlein, G.A.; Grandt, D.; Schaeffer, M.; Zehres, B.; Behn, U.; S

Peptides 11, 111-116, 1990

A:Title: Structural characterization of canine PYY.

A:Reference number: A60416; MUID:90259843

A:Accession: A60416

A:Molecule type: protein

A:Residues: 1-36 <EYS>

C:Superfamily: pancreatic hormone

C:Keywords: amidated carboxyl end; hormone; intestine

F:36/Modified site: amidated carboxyl end (Tyr) #status experimental

Query Match 94.8%; Score 184; DB 2; Length 36;  
Best Local Similarity 94.4%; Pred. No. 1e-17;  
Matches 34; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
|||  
Db 1 YPAKPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 36

RESULT 7  
A29364

peptide YY precursor - rat

C:Species: Rattus norvegicus (Norway rat)

C:Date: 31-Dec-1988 #sequence\_revision 31-Dec-1988 #text\_change 16-Jul-1999

C:Accession: A37955; A29364; JT0416

R:Krasinski, S.D.; Wheeler, M.B.; Leliter, A.B.

Mol. Endocrinol. 5, 433-440, 1991

A:Title: Isolation, characterization, and developmental expression of the rat peptide

A:Reference number: A37955; MUID:91367188

A:Accession: A37955

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-98 <KRA>

A:Cross-references: GB:S57220; NID:g235283; PIDN:AA019752.1; PID:g235284

R:Leliter, A.B.; Toder, A.; Wolfe, H.J.; Taylor, I.L.; Cooperman, S.; Mandel, G.; Good

J. Biol. Chem. 262, 12984-12988, 1987

A:Title: Peptide YY. Structure of the precursor and expression in exocrine pancreas.

A:Reference number: A29364; MUID:88007492

A:Accession: A29364

A:Molecule type: mRNA

A:Residues: 1-98 <LEI>

A:Cross-references: GB:M17523; NID:g204316; PIDN:AAA41222.1; PID:g204317

R:Order, R.; Galliard, R.C.; Boehlen, P.

Regul. Pept. 21, 253-261, 1988

A:Title: Isolation and sequence of rat peptide YY and neuropeptide Y.

A:Reference number: JT0416; MUID:88321122

A:Accession: JT0416

A:Molecule type: protein

A:Residues: 29-64 <COR>





C;Accession: A26377  
R;Kimmel, J.R.; Plisetskaya, E.M.; Pollock, H.G.; Hamilton, J.W.; Rouse, J.B.; Ebner, K  
Biochem. Biophys. Res. Commun. 141, 1084-1091, 1986  
A;Title: Structure of a peptide from coho salmon endocrine pancreas with homology to neu  
A;Reference number: A26377; MUID:87128023  
A;Accession: A26377  
A;Molecule type: protein  
A;Residues: 1-36 <KIM>  
A;Experimental source: pancreas  
C;Superfamily: pancreatic hormone

Query Match	79.9%	Score 155;	DB 2;	Length 36;
Best Local Similarity	75.0%;	Pred. No. 7.2e-14;		
Matches 27; Conservative	4;	Mismatches 5;	Indels 0;	Gaps 0;

**OY**    1 YPIKPEAPGEDASPEELNRRYYASLRHLYNLVTRÖRY 36  
       || ||| |||| | : : : : : : : : : :  
**Db**    1 YPPKPENPGEDAPPEELAKYYTALRHYNLITRÖRY 36

RESULT 13  
7054

Neuropeptide Y Atlantic cod  
 C:Species: *Gadus morhua* (Atlantic cod)  
 C:Date: 19-Mar-1997 #sequence\_revision 19-Mar-1997 #text\_change 31-Oct-1997  
 C:Accession: S27054  
 R:Jensen, J.; Conlon, J.M.  
 Eur. J. Biochem. 210, 405-410, 1992  
 A:Title: Characterization of peptides related to neuropeptide tyrosine and peptide tyrosine  
 A:Reference number: S27054; MUID:93092973  
 A:Accession: S27054  
 A:Status: preliminary  
 A:Molecule type: protein  
 A:Residues: 1-36 <JEN>  
 C:Superfamily: pancreatic hormone

Query Match	78.48;	Score 152;	DB 2;	Length 36;
Best Local Similarity	72.28;	Pred. No. 1.8e-13;		
Matches 26;	Conservative 6;	Mismatches 4;	Indels 0;	Gaps 0;

OY 1 YPIKPEAPGEDASPEELNRYIASLRHYLNLVTRQRY 36  
 ||||| |||| :||: ||||: ||: |||||  
 Db 1 YPIKPENPGEDAPADELAKYYSALRHYINLITRQRY 36

RESULT 14  
S26954

peptide YX-related protein, intestinal - chicken  
 A:Alternate names: neuropeptide Y homolog; peptide tyrosine-tyrosine-related protein  
 S:Species: Gallus gallus (chicken)  
 C:Date: 22-Nov-1993 #sequence\_revision 10-Nov-1995 #text\_change 07-Feb-1997  
 C:Accession: S26954  
 R:Conlon, J.M.; O'Harte, F.  
 FEBS Lett. 313, 225-228, 1992  
 A>Title: The primary structure of a PYY-related peptide from chicken intestine suggests  
 A:Reference number: S26954; MUID:93076900  
 A:Accession: S26954  
 A:Molecule type: protein  
 A:Residues: 1-37 <CON>  
 C:Superfamily: pancreatic hormone  
 C:Keywords: amidated carboxyl end; hormone; intestine; neuropeptide

Query Match	75.88%	Score 147;	DB 2;	length 37;
Best Local Similarity	69.48%	Pred. No. 8.5e-13;		
Matches	25; Conservative	8; Mismatches	3; Indels	0; Gaps

**OY**      1 YPIKPEAPGEDASPEELNRIYYASLRHYNLVTRÖRY 36  
          || ||| : | ||| : : :: ||| : |||||  
**LP**      2 YPKPESPGDASPEEIAQYFSALRHYNLVTRÖRY 37

RESULT	15
A41979	

A41979

neuropeptide Y precursor - chicken  
C:Species: Gallus gallus (chicken)

C;Date: 31-Dec-1993 #sequence\_revision 31-Dec-1993 #text\_change 21-Jul-2000  
C;Accession: M1879

R;Blomqvist, A.G.; Soderberg, C.; Lundell, I.; Milner, R.J.; Larhammar, D. Proc. Natl. Acad. Sci. U.S.A. 89, 2350-2354, 1992

A; Reference number: A41979; MUID:92196116

A; Accession: A41979

A:molecule type: mRNA

A;Residues: 1-97 <BLO

A; Cross-references: GB:M87294; NID:g212458; PIDN:AAA48991.1; PID:g212459

A; Experimental source: central nervous system

A; Note: seq  
C: Function:

A: Description: neuropeptide inducing a number of behavioral effects including stimulation

C; Superfamily: pancreatic hormone

C;Keywords: amidated carboxyl end; appetite; hormone; neuropeptide

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F:29-64/Product: neurontide v #status predicted <SIG>
F;1-28/Domain: signal sequence #status predicted
```

F:65-97/Domain: carboxyl-terminal propeptide #status prn/

F:64/Modified site: amidated carboxyl end (Tyr) (amide in mature form from following

Query Match	75.88;	Score 147;	DB 2;	Length 97;
-------------	--------	------------	-------	------------

Best Local Similarity 66.7%; pred. No. 2.5e-12;  
Matches 34: Conservative 8: Mismatched 4

Matches	24;	conservative	8;	mismatches	4;	indels	0;	gaps	0;
---------	-----	--------------	----	------------	----	--------	----	------	----

QY 1 YPIKPEARGEDASPEELNRYASLRHYLNLVTRQRY 36

Db 29 YPSKPDSPGEDAPAEADMARYYSALRHYINLITRQRY 64

Search completed: July 30, 2002, 08:01:04  
Job time: 92 sec

Tue Jul 30 10:09:18 2002

us-10-016-969-2.rpr

Page 5





GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: July 30, 2002, 08:01:07 ; Search time 15.98 Seconds  
(without alignments)  
87.228 Million cell updates/sec

Title: US-10-016-969-2  
Perfect score: 194  
Sequence: 1 YPIKPEAPGEDASPELNRYYASLRHYLNLVTRQRY 36

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

arched: 105224 seqs, 38719550 residues

Total number of hits satisfying chosen parameters: 105224

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : SwissProt\_40:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match length	ID	Description
1	194	100.0	PYY_HUMAN	P10082 homo sapien
2	184	94.8	PYY_PIG	P01305 sus scrofa
3	184	94.8	PYY_MOUSE	Q9eps2 mus musculu
4	184	94.8	PYY_RAT	P10631 rattus norv
5	168	86.6	PYY_BOVIN	P51694 bos taurus
6	162	83.5	SPYY_PHYBI	P80952 phyllomedus
7	158	81.4	PYY_AMICA	P29205 amia calva
8	156	80.4	PYY_LEPSP	P09473 lepisosteus
9	155	79.9	PYY_ONCKI	P09474 oncorhynch
10	155	79.9	PYY_RAJRH	P29206 raja rhina
11	154	79.4	PYY_BRARE	Q918p2 brachydanio
12	154	79.4	NEUY_DICLA	Q9pta0 dicentrarch
13	153	78.9	PYY_RANR1	P29071 oncorhynch
14	153	78.9	PYY_RANR1	P29071 rana ridibu
15	152	78.4	NEUY_GADMO	P80167 gadus morhu
16	147	75.8	PYY_CHICK	P29203 gallus gall
17	147	75.8	NEUY_BRARE	Q918p3 brachydanio
18	147	75.8	NEUY_CHICK	P28673 gallus gall
19	146	75.3	NEUY_PIG	P01304 sus scrofa
20	144	74.2	NEUY_RABIT	P09640 corytolagus
21	144	74.2	PYY_ORENI	P81028 oreochromis
22	144	74.2	NEUY_HUMAN	P01303 homo sapien
23	144	74.2	NEUY_MOUSE	P57774 mus musculu
24	144	74.2	NEUY_RAT	P07808 rattus norv
25	143	73.7	NEUY_SHEEP	P14765 ovis aries
26	141	72.7	NEUY_XANRI	P29949 rana ridibu
27	141	72.7	NEUY_XENLA	P33689 xenopus lae
28	140	72.2	NEUY_CARAU	P28672 catarrhynch
29	139	71.6	PYY_PIG	Q9pt98 dicentrarch
30	137	70.6	PYY_DICLA	Q9pt99 dicentrarch
31	136	70.1	NEUY_TORMA	P28674 torpedo mar
32	135	69.6	PYY_LAMFL	P48098 lampetra fl
33	133	68.6	PYY_MYOSC	P09641 myoxocephal

34	133	68.6	104	1	NEUY_LAMFL	P48097 lampetra fl
35	132	68.0	69	1	PYY_LOPAM	P09475 lophius ame
36	122	62.9	36	1	PYY_PETMA	P80024 petromyzon
37	113	58.2	131	1	PAHO_BOVIN	P01302 bos taurus
38	111	57.2	36	1	PAHO_PIG	P01300 sus scrofa
39	111	57.2	93	1	PAHO_CANFA	P01299 canis fami
40	109	56.2	36	1	PAHO_CERSI	P37999 ceratotheri
41	107	55.2	36	1	PAHO_LARAR	P41337 larus argen
42	106	54.6	36	1	PAHO_MACMU	P33684 macaca mula
43	106	54.6	36	1	PAHO_RABIT	P41336 corytolagus
44	106	54.6	36	1	PAHO_TAPPI	P39659 tapirus pin
45	106	54.6	59	1	PAHO_SHEEP	P01301 ovis aries

## ALIGNMENTS

RESULT 1  
PYY\_HUMAN 1  
ID PYY\_HUMAN STANDARD; PRT; 97 AA.  
AC P10082;  
DT 01-MAR-1989 (Rel. 10, Created)  
DT 01-NOV-1995 (Rel. 32, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
DE Peptide YY precursor (PYY) (Peptide tyrosine tyrosine).  
GN PYY.  
OS Homo sapiens (Human).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Euthera; Primates; Catarrhini; Homidae; Homo.  
OX NCBI\_TaxID=9606;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=Colon mucosa;  
RX MEDLINE=93305732; PubMed=8318545;  
RA Kohri K., Nata K., Yonekura H., Nagai A., Konno K., Okamoto H.;  
RT "Cloning and structural determination of human peptide YY cDNA and  
gene."  
RL Blochim. Biophys. Acta 1173:345-349(1993).  
RN [2]  
RP SEQUENCE FROM N.A.  
RC TISSUE=Lymphocytes;  
RA Herzog H.;  
RL Submitted (NOV-1993) to the EMBL/GenBank/DBJ databases.  
RN [3]  
RP SEQUENCE OF 29-64, AND SYNTHESIS OF 29-64.  
RX MEDLINE=89076307; PubMed=3202875;  
RA Tatemoto K., Nakano I., Maki G., Angwin P., Mann M., Schilling J.,  
RA Go V.L.W.;  
RT "Isolation and primary structure of human peptide YY."  
RL Biochem. Biophys. Res. Commun. 157:713-717(1988).  
RN [4]  
RP SEQUENCE OF 29-64.  
RX MEDLINE=90068171; PubMed=2587421;  
RA Eberlein G.A., Eysselein V.E., Schaeffer M., Layer P., Grandt D.,  
RA Goebel H., Niebel W., Davis M., Lee T.D., Shively J.E.,  
RA Reeve J.R., Jr.;  
RT "A new molecular form of PYY: structural characterization of human  
PYY(3-36) and PYY(1-36)."  
RL Peptides 10:797-803(1989).  
CC -!- FUNCTION: THIS GUT PEPTIDE INHIBITS EXOCRINE PANCREATIC SECRETION,  
HAS A VASOCONSTRICTORY ACTION AND INHIBITS JEJUNAL AND COLONIC  
MOBILITY.  
CC -!- SUBCELLULAR LOCATION: Secreted.  
CC -!- ALTERNATIVE PRODUCTS: 2 ISOFORMS: A LONG FORM (SHOWN HERE) AND A  
SHORT FORM; ARE PRODUCED BY ALTERNATIVE SPLICING.  
CC -!- SIMILARITY: BELONGS TO THE NPY / PYY / PYY FAMILY.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
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CC	or send an email to license@lsib-sib.ch).
CC	-----
DR	EMBL; D13897; BAA02997.1; -
DR	EMBL; D13897; BAA02998.1; -
DR	EMBL; D13899; BAA03000.1; -
DR	EMBL; D13902; BAA03002.1; -
DR	EMBL; L25648; AAA36433.1; -
DR	PIR; A31358; A31358.
DR	PIR; A60676; A60676.
DR	HSSP; P01303; IIRON.
DR	MIM; 600781; -
DR	InterPro; IPRO01955; Pancreatic_hormn.
DR	Pfam; PF00159; hormone3; 1.
DR	PRINTS; PR00278; PANCHORMONE.
DR	Prodrom; PD001267; Pancreatic_hormn; 1.
DR	SMART; SM00309; PAH; 1.
DR	PROSITE; PS00265; PANCREATIC_HORMONE_1; 1.
DR	PROSITE; PS50276; PANCREATIC_HORMONE_2; 1.
KW	Hormone; Cleavage on pair of basic residues; Pancreas; Amidation;
KW	Signal; Alternative splicing.
FT	SIGNAL 1 28
FT	PEPTIDE 29 64
FT	PROPEP 68 97
FT	MOD_RES 64 64
FT	VARSPLIC 91 97
FT	VARIANT 72 72
FT	T -> R.
FT	/FTId=VAR_006382.
SO	SEQUENCE 97 AA; 11046 MW; DD16B73407F656A4 CRC64;





	Matches	30; Conservative	3; Mismatches	3; Indels	0; Gaps	0;
QY	1	YPIKPEAPGEDASPEELNRYYSLSRLHYLNLVTRQRY	36			
		:                                  :				
Db	29	YPAKPQAPGEHASPEDELNRYTSLRHYLNLVTRQRF	64			

RESULT	6		
ID	SPYX_PHYBI	STANDARD;	PRT; 36 AA.
AC	SPYX_PHYBI		
DT	p80952;		
DT	01-NOV-1997	(Rel. 35, Created)	
DT	01-NOV-1997	(Rel. 35, Last sequence update)	
DT	16-OCT-2001	(Rel. 40, Last annotation update)	
DE	Skin peptide tyrosine-tyrosine (SPYX).		
OS	Phyllomedusa bicolor	(Two-colored leaf frog).	
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;		
OC	Amphibia; Batrachia; Anura; Neobatrachia; Bufonidae; Hylidae;		
OC	Phyllomedusa.		
OX	NCBI_TaxID=8393;		

RP SEQUENCE:  
RT TISSUE=Skin;  
RA MEDLINE=95024100; Pubmed=7937944;  
RT Mor A., Chartrel N., Vaudry H., Nicolas P.;  
RT "Skin peptide tyrosine-tyrosine, a member of the pancreatic  
RT polypeptide family: isolation, structure, synthesis, and endocrine  
RT activity.";   
RL Proc. Natl. Acad. Sci. U.S.A. 91:10295-10299(1994).  
RN [2]

RP CHARACTERIZATION.  
RX MEDLINE=96186932; Pubmed=8601432;  
RA Youdoukis I., Shai Y., Nicolas P., Mor A.;  
RT "Broad spectrum antibiotic activity of skin-py.";  
RL FEBS Lett. 380:237-240(1996).  
CC -!- FUNCTION: SHOWS A BROAD SPECTRUM OF ANTIBACTERIAL ACTIVITY AGAINST  
CC GRAM-POSITIVE AND GRAM-NEGATIVE BACTERIA, YEAST AND FUNGI.  
CC -!- SUBCELLULAR LOCATION: Secreted.  
CC -!- TISSUE SPECIFICITY: SKIN.  
CC -!- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.  
DR HSSP; P01303; 1IRON.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR ProDom; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS00276; PANCREATIC\_HORMONE\_2; 1.  
KW Antibiotic; Amphibian skin; Fungicide; Hormone; Amidation.  
FT MOD\_RES 36 36  
SEQUENCE 36 AA; 4265 MW; 0725D316031827AE CRC64;

Query Match	83.5%;	Score 162;	DB 1;	Length 36;
Best Local Similarity	77.8%;	Pred. No. 7e-16;		
Matches	28;	Conservative	5;	Mismatches 3;
			Indels	0;
			Gaps	0;

QY 1 YPIKPEAPGEDASPEELNRYYSASLRHYLNLVTRQRY 36

DB 1 YPKPESPGEADASPEEMNKYLTALRHYINLVTRQRY 36

RESULT	7		
PYX_AMICA			
ID	PYX_AMICA	STANDARD;	PRT; 36 AA.
AC	P29205;		
DT	01-DEC-1992 (Rel. 24, Created)		
DT	01-DEC-1992 (Rel. 24, Last sequence update)		
DT	01-MAR-2002 (Rel. 41, Last annotation update)		
DE	Peptide YX-like (PYX).		
GN	PYX.		
OS	Amia calva (Bowfin).		
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;		

OC Actinopterygii; Neopterygii; Amiiformes; Amilidae; Amia.  
 OX NCBI\_TaxID=7924;

```

RP SEQUENCE.
RC TISSUE=Pancreas;
RX MEDLINE=91296574; Pubmed=2067973;
RA Conlon J.M., Bjerning C., Moon T.W., Youson J.H., Thim L.;
RT "Neuropeptide Y-related peptides from the pancreas of a teleostean
RL (eel), holostean (bowfin) and elasmobranch (skate) fish.";
CC Peptides 12:221-226(1991).
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.
DR HSP; P01303; IRON.
DR InterPro; IPR001955; Pancreatic_hormn.
DR Pfam; PF00159; hormone3; 1.
DR PRINTS; PR00278; PANCHORMONE.
DR ProDom; PD001267; Pancreatic_hormn; 1.
DR SMART; SM00309; PAH; 1.
DR PROSITE; PS00265; PANCREATIC_HORMONE_1; 1.
DR PROSITE; PS50276; PANCREATIC_HORMONE_2; 1.
KW Hormone; Amidation.
FT MOD_RES 36
SQ SEQUENCE 36 AA; 4333 MW; 56B46F3C08666671 CRC64;

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Query Match	81.48;	Score 158;	DB 1;	Length 36;	
Best Local Similarity	77.88;	Pred. No. 2.4e-15;			
Matches 28; Conservative	3;	Mismatches 5;	Indels 0;	Gaps 0;	

OY	1 YPIKIEAPGEDASPEELNRRYYASLRHYLNLVTRQRY 36
	:     :
Dd	1 YPKKENPGEDAPPEELARYTALRHYINLTIRORY 36

RESULT	ID	PHYLEPSP	STANDARD;	PRT;	36 AA.
	AC	P09473;			
DT	01-MAR-1989	(Rel. 10, Created)			
DT	01-MAR-1989	(Rel. 10, Last sequence update)			
DT	16-OCT-2001	(Rel. 40, Last annotation update)			
DE	Peptide YX-1-like (PHY)	(Neuropeptide Y-related peptide).			
OS	Lepisosteus spatula	(Alligator gar) (Atractosteus spatula),			
OS	Scyliorhinus canicula	(Spotted dogfish) (Spotted catshark), and			
OS	Squalus acanthias	(Spiny dogfish).			
OC	Eukaryota;				
OC	Metazoa;				
OC	Chordata;				
OC	Cranialia;				
OC	Vertebrata;				
OC	Euteleostomi;				
OC	Actinopterygii;				
OC	Neopterygii;				
OC	Semionotiformes;				
OC	Lepisosteidae;				
OX	NCBI_TaxID=7917,				
XX	7830,				
XX	7797;				

RP SEQUENCE.  
RC SPECIES=L spatula; TISSUE=Pancreas;  
RX MEDLINE=88030594; PubMed=3311873;  
RA Pollock H.G., Kimmel J.R., Hamilton J.W., Rouse J.B., Ebner K.E.  
RA Lance V., Rawlitch A.B.;  
RT "Isolation and structures of alligator gar (Lepisosteus spatula)  
RT insulin and pancreatic polypeptide.";  
RL Gen. Comp. Endocrinol. 67:375-382(1987).

RP SEQUENCE, AND SYNTHESIS.  
RC SPECIES=S.canicula; TISSUE=Pancreas;  
RX MEDLINE=91209266; PubMed=2019251;  
RA Conlon J.M., Balasubramaniam A., Hazon N.;  
RT "Structural characterization and biological activity of a  
RT neuropeptide Y-related peptide from the dogfish, Scylliorhinus  
RT canicula.";  
RL Endocrinology 128: 2273-2279(1991).  
RN [3]  
RP SEQUENCE.  
RC SPECIES=S.acanthias; TISSUE=Pancreas;  
RA Pan J.-Z., Shaw C., Halton D.W., Thim L., Johnston C.F.,  
RA Fairweather I., Buchanan K.D.;  
RT "Isolation and primary structure of the peptide Y from the pancreas





GN PY.  
OS Brachydanio rerio (Zebrafish) (Zebra danio).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Ostariophysi;  
OC Cypriniformes; Cyprinidae; Danio.  
OX NCBI\_TaxID=7955;  
RN [1]  
RP SEQUENCE FROM N.A.  
RA Soderberg C., Wraith A., Ringvall M., Yan Y., Postlethwait J.H.,  
RA Brodin L., Larhammar D.;  
RT "Zebrafish genes for neuropeptide Y and peptide YY reveal origin by  
RT chromosome duplication from an ancestral gene linked to the homeobox  
RT cluster.";  
RL Submitted (FEB-2000) to the EMBL/GenBank/DBJ databases.  
CC -!- SUBCELLULAR LOCATION: Secreted.  
CC -!- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.  
CC -----  
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CC -----  
DR EMBL; AF233875; AAF79942.1; -  
DR HSSP; P01303; IRON.  
DR ZFIN; ZDB-GENE-980526-71; PYY.  
DR InterPro; IPR001955; Pancreatic\_horm.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR ProDom; PD001267; Pancreatic\_horm; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS00276; PANCREATIC\_HORMONE\_2; 1.  
KW Hormone; Cleavage on pair of basic residues; Amidation; Signal;  
KW Neuropeptide.  
FT SIGNAL 1 28 POTENTIAL.  
FT CHAIN 29 64 PEPTIDE YY.  
FT PROPEP 68 97 C-TERMINAL EXTENSION (BY SIMILARITY).  
FT MOD\_RES 64 64 AMIDATION (G-65 PROVIDE AMIDE GROUP)  
FT (POTENTIAL).  
SQ SEQUENCE 97 AA; 11175 MW; 96EA07EF0991AC2D CRC64;

Query Match 79.4%; Score 154; DB 1; Length 97;  
Best Local Similarity 72.2%; Pred. No. 2.8e-14;  
Matches 26; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

OY 1 YPIKPEAPGEDASPEELNRYASLRHYLNIVTRQRY 36  
Db 29 YPPKPEPENGDDAPAEELAKYYSALRHYLNIVTRQRY 64

RESULT 12  
NEUY\_DICLA STANDARD; PRT; 99 AA.  
AC Q9PTA0; Q9PT97;  
DT 16-OCT-2001 (Rel. 40, Created)  
DT 16-OCT-2001 (Rel. 40, Last sequence update)  
DT 01-MAR-2002 (Rel. 41, Last annotation update)  
DE Neuropeptide Y precursor (NPY).  
GN NPY.  
OS Dicotylarchus labrax (European sea bass).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;  
OC Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Percoidae;  
OC Moronidae; Dicotylarchus.  
OX NCBI\_TaxID=13489;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=Brain;  
RA Cerda-Reverter J.M., Martinez-Rodriguez G., Zanuy S., Carrillo M.,  
RT

RA Larhammar D.;  
RT "Neuropeptide Y, endocrine gut peptide YY and fish pancreatic peptide  
RT Y expression in the brain of a teleost fish (Dicotylarchus labrax):  
RT from cloning to evolutionary considerations.";  
RL Submitted (APR-1998) to the EMBL/GenBank/DBJ databases.  
RN [2]  
RP SEQUENCE OF 1-62 FROM N.A.  
RC TISSUE=Blood;  
RA Cerda-Reverter J.M., Martinez-Rodriguez G., Zanuy S., Carrillo M.,  
RA Larhammar D.;  
RT "Deduced peptide sequence of neuropeptide Y exon 2 from sea bass  
RT (Dicotylarchus labrax).";  
RL Submitted (APR-1998) to the EMBL/GenBank/DBJ databases.  
CC -!- FUNCTION: NPY IS IMPLICATED IN THE CONTROL OF FEEDING AND IN  
CC SECRETION OF GONADOTROPHIN-RELEASE HORMONE.  
CC -!- SUBCELLULAR LOCATION: Secreted.  
CC -!- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
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CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
DR EMBL; AJ005378; CAB64932.1; -  
DR EMBL; AJ005381; CAB64935.1; -  
DR HSSP; P01303; IRON.  
DR InterPro; IPR001955; Pancreatic\_horm.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR ProDom; PD001267; Pancreatic\_horm; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS00276; PANCREATIC\_HORMONE\_2; 1.  
KW Neuropeptide; Cleavage on pair of basic residues; Signal; Amidation.  
FT SIGNAL 1 28 BY SIMILARITY.  
FT CHAIN 29 64 NEUROPEPTIDE Y.  
FT PROPEP 68 99  
FT MOD\_RES 64 64  
FT SEQUENCE 99 AA; 11260 MW; 4EEFAD164964184 CRC64;

Query Match 79.4%; Score 154; DB 1; Length 99;  
Best Local Similarity 72.2%; Pred. No. 2.9e-14;  
Matches 26; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

OY 1 YPIKPEAPGEDASPEELNRYASLRHYLNIVTRQRY 36  
Db 29 YPPKPEPENGDDAPAEELAKYYSALRHYLNIVTRQRY 64

RESULT 13  
NEUY\_ONCMY STANDARD; PRT; 36 AA.  
AC P29071;  
DT 01-DEC-1992 (Rel. 24, Created)  
DT 01-DEC-1992 (Rel. 24, Last sequence update)  
DT 01-MAR-2002 (Rel. 41, Last annotation update)  
DE Neuropeptide Y (NPY).  
GN NPY.  
OS Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei;  
OC Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.  
OX NCBI\_TaxID=8022;  
RN [1]  
RP SEQUENCE.  
RC TISSUE=Brain;  
RX MEDLINE=93092973; PubMed=1459125;  
RA Jensen J., Conlon J.M.;  
RT "Characterization of peptides related to neuropeptide tyrosine and



Tue Jul 30 10:09:18 2002

us-10-016-969-2.rsp

---



GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: July 30, 2002, 08:00:37 ; Search time 44.26 Seconds  
(without alignments)  
140.710 Million cell updates/sec

Title: US-10-016-969-2

Perfect score: 194  
Sequence: 1 YPIKPEAPGEDASPEELNRYASLRHLYLVTRQRY 36

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Number of hits satisfying chosen parameters: 562222

Total number of hits satisfying chosen parameters: 562222

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : SPTREMBL\_19:\*

1: sp\_archaea:\*\n2: sp\_bacteria:\*\n3: sp\_fungi:\*\n4: sp\_human:\*\n5: sp\_invertebrate:\*\n6: sp\_mammal:\*\n7: sp\_mhc:\*\n8: sp\_organelle:\*\n9: sp\_phage:\*\n10: sp\_plant:\*\n11: sp\_rodent:\*\n12: sp\_virus:\*\n13: sp\_vertebrate:\*\n14: sp\_unclassified:\*\n15: sp\_virus:\*\n16: sp\_bacteriophage:\*\n17: sp\_archaeal:\*

Pred. NO. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	188	96.9	36	6 Q9TR93	Q9tr93 oryctolagus
2	184	94.8	98	11 Q91XD0	Q91xd0 mus musculu
3	176	90.7	34	6 Q9TR92	Q9tr92 oryctolagus
4	154	79.4	97	13 Q918P2	Q918p2 brachydanio
5	151	77.8	99	13 Q90WF4	Q90wf4 paralichthy
6	149	76.8	95	13 Q919D3	Q919d3 ictalurus p
7	147	75.8	96	13 Q9DCK7	Q9dck7 cyprinus ca
8	147	75.8	96	13 Q918P3	Q918p3 brachydanio
9	146	75.3	76	6 Q9N0M5	Q9n0m5 sus scrofa
10	144	74.2	97	6 Q9XSW6	Q9xsw6 macaca mula
11	143	73.7	89	11 Q925V2	Q925v2 mus musculu
12	143	73.7	90	6 Q9TSI6	Q9tsi6 ovis aries
13	141	72.7	97	13 Q9FW68	Q9fw68 typhlonecte
14	141	72.7	99	13 Q90WF3	Q90wf3 paralichthy
15	136	70.1	36	13 Q9PS46	Q9ps46 scylliorhinu
16	132	68.0	97	13 Q90WF2	Q90wf2 paralichthy

17	98	50.5	59	6 Q9GKL0	Q9gkl0 sus scrofa
18	69	35.6	21	13 Q9PS51	Q9ps51 lampetra fl
19	67	34.5	33	4 Q9NR16	Q9nr16 homo sapien
20	63	32.5	89	5 Q9U0S9	Q9u0s9 lymnaea sta
21	59	30.4	92	5 Q27441	Q27441 aplysia cal
22	58	29.9	77	16 Q97Q92	Q97q92 streptococc
23	58	29.9	621	12 Q38017	Q38017 salmonid he
24	56.5	29.1	504	8 Q9TM13	Q9tm13 cyanidium c
25	56.5	29.1	734	3 Q9P3S1	Q9p3s1 neurospora
26	56.5	29.1	6420	2 P95814	P95814 streptomyce
27	55	28.4	380	4 Q9Y4Y0	Q9y4y0 homo sapien
28	55	28.4	1374	4 Q9NRR4	Q9nrr4 homo sapien
29	54.5	28.1	356	2 Q9L2L8	Q9l2l8 streptomyce
30	54.5	28.1	359	3 Q9C439	Q9c439 pneumocysti
31	54	27.8	469	5 Q9V5H6	Q9v5h6 drosophila
32	54	27.8	501	4 Q96QU6	Q96qu6 homo sapien
33	54	27.8	377	3 Q96LX5	Q96lx5 homo sapien
34	53.5	27.6	377	3 Q96WX4	Q96wx4 pneumocysti
35	53.5	27.6	935	11 Q91XY1	Q91xy1 mus musculu
36	53	27.3	321	17 Q9YD78	Q9y78 aeropyrum p
37	53	27.3	325	4 Q9NW90	Q9nw90 homo sapien
38	53	27.3	453	4 Q96GG1	Q96gg1 homo sapien
39	53	27.3	530	5 Q916S0	Q916s0 caenorhabdi
40	53	27.3	835	4 Q96C69	Q96c69 homo sapien
41	53	27.3	872	2 Q54307	Q54307 streptomyce
42	53	27.3	1145	11 Q9DBV3	Q9dbv3 mus musculu
43	53	27.3	1564	4 Q14160	Q14160 homo sapien
44	52.5	27.1	114	10 Q9XH20	Q9xh20 arabidopsis
45	52.5	27.1	811	4 Q9UN65	Q9un65 homo sapien

## ALIGNMENTS

RESULT 1  
ID Q9TR93 PRELIMINARY: PRT: 36 AA.  
AC Q9TR93;  
DT 01-MAY-2000 (TREMBLrel. 13, Created)  
DT 01-MAY-2000 (TREMBLrel. 13, Last sequence update)  
DT 01-OCT-2001 (TREMBLrel. 18, Last annotation update)  
DE PEPTIDE YY, PYR(1-36).  
OS Oryctolagus cuniculus (Rabbit).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Euteria; Lagomorpha; Leporidae; Oryctolagus.  
OX NCBI\_TaxID=9986;  
RN [1]  
RP SEQUENCE.  
RX MEDLINE=95075735; PubMed=7984499;  
RA Grandt D., Schimiczek M., Struk K., Shively J., Eysselein V.E.,  
RA Goebell H., Reeve J.R., Jr.;  
RT "Characterization of two forms of peptide YY, PYR(1-36) and PYR(3-36),  
in the rabbit".  
RL Peptides 15:815-820(1994).  
CC -!- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.  
DR HSSP; P01303; IRON.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR ProDom; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANCREATIC\_HORMONE\_2; 1.  
KW Amidation.  
SQ SEQUENCE 36 AA; 4285 MW; 02D499C8086DCC8D CRC64;

Query Match 96.9%; Score 188; DB 6; length 36;  
Best Local Similarity 97.2%; Pred. No. 5e-18;  
Matches 35; Conservative 0; Mismatches 1; Indels 0; Gaps 0;  
QY 1 YPIKPEAPGEDASPEELNRYASLRHLYLVTRQRY 36  
|| ||||||||||||||||||||||||||||||||||||

Db 1 YPSKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

## RESULT 2

Q91XD0 PRELIMINARY; PRT; 98 AA.  
ID Q91XD0  
AC Q91XD0;  
DT 01-DEC-2001 (TREMBLrel. 19, Created)  
DT 01-DEC-2001 (TREMBLrel. 19, Last sequence update)  
DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)  
DE UNKNOWN (PROTEIN FOR MGC:19143).  
OS Mus musculus (Mouse).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
OX NCBI\_TaxID=10090;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=COLON;  
RA Strausberg R.;  
RL Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.  
DR EMBL; BC010821; AAH10821.1; -  
SQ SEQUENCE 98 AA; 11064 MW; 7AF165A1052C3249 CRC64;

Query Match 94.8%; Score 184; DB 11; Length 98;  
Best Local Similarity 94.4%; Pred. No. 5.2e-17;  
Matches 34; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
Db 29 YPAKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 64

## RESULT 3

Q9TR92 PRELIMINARY; PRT; 34 AA.  
ID Q9TR92  
AC Q9TR92;  
DT 01-MAY-2000 (TREMBLrel. 13, Created)  
DT 01-MAY-2000 (TREMBLrel. 13, Last sequence update)  
DT 01-OCT-2001 (TREMBLrel. 18, Last annotation update)  
DE PEPTIDE YY, PYY(3-36).  
OS Oryctolagus cuniculus (Rabbit).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.  
OX NCBI\_TaxID=9986;  
RN [1]  
RP SEQUENCE.  
RX MEDLINE=95075735; PubMed=7984499;  
RA Grandt D., Schimiczek M., Struk K., Shively J., Eysselein V.E.,  
Goebell H., Reeve J.R.Jr.;  
RT "Characterization of two forms of peptide yy, PYY(1-36) and PYY(3-36),  
in the rabbit.";  
RL Peptides 15:815-820(1994).  
CC -1- SIMILARITY: BELONGS TO THE NPY / PYY / PYY FAMILY.  
DR HSSP; P01303; 1RON.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR ProDom; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANCREATIC\_HORMONE\_2; 1.  
KW Amidation.  
SQ SEQUENCE 34 AA; 4024 MW; 02D4E9C38BA5FC8D CRC64;

Query Match 90.7%; Score 176; DB 6; Length 34;  
Best Local Similarity 100.0%; Pred. No. 1.9e-16;  
Matches 33; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
Lb 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34

## RESULT 4

Q918P2 PRELIMINARY; PRT; 97 AA.  
ID Q918P2  
AC Q918P2;  
DT 01-OCT-2000 (TREMBLrel. 15, Created)  
DT 01-OCT-2000 (TREMBLrel. 15, Last sequence update)  
DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)  
DE PEPTIDE YY PRECURSOR.  
GN PYY.  
OS Brachydanio rerio (Zebrafish) (Zebra danio).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi;  
OC Cypriniformes; Cyprinidae; Danio.  
OX NCBI\_TaxID=7955;  
RN [1]  
RP SEQUENCE FROM N.A.  
RA Soderberg C., Wraith A., Ringvall M., Yan Y., Postlethwait J.H.,  
Brodin L., Larhammar D.;  
RT "Zebrafish genes for neuropeptide Y and peptide YY reveal origin by  
RT chromosome duplication from an ancestral gene linked to the homeobox  
RT cluster.";  
RL Submitted (FEB-2000) to the EMBL/GenBank/DBJ databases.  
CC -1- SIMILARITY: BELONGS TO THE NPY / PYY / PYY FAMILY.  
DR EMBL; AF233875; AAF79942.1; -  
DR HSSP; P01303; 1RON.  
DR ZFIN; ZDB-GENE-980526-71; PYY.  
DR InterPro; IPR001955; Pancreatic\_hormn.  
DR Pfam; PF00159; hormone3; 1.  
DR PRINTS; PR00278; PANCHORMONE.  
DR ProDom; PD001267; Pancreatic\_hormn; 1.  
DR SMART; SM00309; PAH; 1.  
DR PROSITE; PS00265; PANCREATIC\_HORMONE\_1; 1.  
DR PROSITE; PS50276; PANCREATIC\_HORMONE\_2; 1.  
KW Amidation; Signal.  
FT SIGNAL 1 28 POTENTIAL.  
FT CHAIN 29 64 PEPTIDE YY.  
SQ SEQUENCE 97 AA; 11175 MW; 96EA07EF0991AC2D CRC64;

Query Match 79.4%; Score 154; DB 13; Length 97;  
Best Local Similarity 72.2%; Pred. No. 5e-13;  
Matches 26; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
Db 29 YPPKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 64

## RESULT 5

Q90WF4 PRELIMINARY; PRT; 99 AA.  
ID Q90WF4  
AC Q90WF4;  
DT 01-DEC-2001 (TREMBLrel. 19, Created)  
DT 01-DEC-2001 (TREMBLrel. 19, Last sequence update)  
DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)  
DE NEUROPEPTIDE Y.  
GN NPY.  
OS Paralicthys olivaceus (Flounder).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;  
OC Acanthomorpha; Acanthopterygii; Percomorpha; Pleuronectiformes;  
OC Pleuronectoidae; Paralicthidae; Paralicthys.  
OX NCBI\_TaxID=8255;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=BRAIN;  
RA Kurokawa T., Suzuki T.;  
RT "Development of neuropeptide Y related peptides in the digestive  
RT organs during the larval stage of Japanese flounder, Paralicthys  
RT olivaceus.";  
RL Submitted (FEB-2001) to the EMBL/GenBank/DBJ databases.  
DR EMBL; AB055211; BAB62409.1; -





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RESULT 9
Q9NOM5 PRELIMINARY; PRT; 76 AA.
AC Q9NOM5;
DT 01-OCT-2000 (Tremblrel. 15, Created)
DT 01-OCT-2000 (Tremblrel. 15, Last sequence update)
DT 01-DEC-2001 (Tremblrel. 19, Last annotation update)
DE PROMEUROPEPTIDE Y (FRAGMENT).
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX NCBI_TaxID=9823;
RN (1)
RP SEQUENCE FROM N.A.
RC TISSUE=HYPOTHALAMUS;
RA Matteri R.L.;
RL Submitted (MAY-2000) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.
DR EMBL; AF264083; AAF72538.1; -.
DR HSSP; P01303; IRON.
DR InterPro; IPR001955; Pancreatic_hormn.
DR Pfam; PF00159; hormone3; 1.
DR PRINTS; PR00278; PANCHORMONE.
DR ProDom; PD001267; Pancreatic_hormn; 1.
DR SMART; SM00309; PAH; 1.
DR PROSITE; PS00265; PANCREATIC_HORMONE_1; 1.
DR PROSITE; PS50276; PANCREATIC_HORMONE_2; 1.
KW Amidation; Neuropeptide.
FT NON_TER 1
FT CHAIN 10 >45 NEUROPEPTIDE Y.
FT NON_TER 76
SQ SEQUENCE 76 AA; 8596 MW; 84E40EC2A4F94B2C CRC64;

Query Match 75.3%; Score 146; DB 6; Length 76;
Best Local Similarity 69.4%; Pred. No. 4.4e-12;
Matches 25; Conservative 6; Mismatches 5; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36
Db 10 YPSKPDNPGEDAPAEEDLARYSALRHYINLITRQRY 45

RESULT 10
Q9XSW6 PRELIMINARY; PRT; 97 AA.
AC Q9XSW6;
DT 01-NOV-1999 (Tremblrel. 12, Created)
DT 01-NOV-1999 (Tremblrel. 12, Last sequence update)
DT 01-DEC-2001 (Tremblrel. 19, Last annotation update)
DE NEUROPEPTIDE Y.
OS NPY.
OC Macaca mulatta (Rhesus macaque).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopitheidae;
OC Cercopitheciae; Macaca.
OX NCBI_TaxID=9544;
RN (1)
RP SEQUENCE FROM N.A.
RA Abler L.A., Golos T.G., Terasawa E.;
RT "Developmental changes in NPY mRNA expression in female rhesus
RT monkeys."
RL Submitted (JUN-1999) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.
DR EMBL; AF162280; AAD43583.1; -.
DR HSSP; P01303; IRON.
DR InterPro; IPR001955; Pancreatic_hormn.
DR Pfam; PF00159; hormone3; 1.
DR PRINTS; PR00278; PANCHORMONE.
DR ProDom; PD001267; Pancreatic_hormn; 1.
DR SMART; SM00309; PAH; 1.
DR PROSITE; PS00265; PANCREATIC_HORMONE_1; 1.
DR PROSITE; PS50276; PANCREATIC_HORMONE_2; 1.
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KW Amidation.
SQ SEQUENCE 97 AA; 10840 MW; 2D2209BAC20BD5EE CRC64;

Query Match 74.2%; Score 144; DB 6; Length 97;
Best Local Similarity 66.7%; Pred. No. 1.1e-11;
Matches 24; Conservative 7; Mismatches 5; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36
Db 29 YPSKPDNPGEDAPAEEDLARYSALRHYINLITRQRY 64

RESULT 11
Q925V2 PRELIMINARY; PRT; 89 AA.
AC Q925V2;
DT 01-DEC-2001 (Tremblrel. 19, Created)
DT 01-DEC-2001 (Tremblrel. 19, Last sequence update)
DT 01-DEC-2001 (Tremblrel. 19, Last annotation update)
DE NEUROPEPTIDE Y (FRAGMENT).
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN (1)
RP SEQUENCE FROM N.A.
RC STRAIN=SM/J;
RX MEDLINE=21077529; PubMed=11210195;
RA Taylor B.A., Wnek C., Schroeder D., Phillips S.J.;
RT "Multiple obesity QTS identified in an intercross between the NZO
RT (New Zealand obese) and the SM (small) mouse strains."
RL Mamm. Genome 12:95-103(2001).
DR EMBL; AF286198; AAC01330.1; -.
FT NON_TER 89
SQ SEQUENCE 89 AA; 9943 MW; AE6052615A59D96A CRC64;

Query Match 73.7%; Score 143; DB 11; Length 89;
Best Local Similarity 66.7%; Pred. No. 1.3e-11;
Matches 24; Conservative 7; Mismatches 5; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36
Db 29 YPSKPDNPGEDAPAEEDLARYSALRHYINLITRQRY 64

RESULT 12
Q9TSI6 PRELIMINARY; PRT; 90 AA.
AC Q9TSI6;
DT 01-MAY-2000 (Tremblrel. 13, Created)
DT 01-MAY-2000 (Tremblrel. 13, Last sequence update)
DT 01-DEC-2001 (Tremblrel. 19, Last annotation update)
DE NEUROPEPTIDE Y (FRAGMENT).
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovidae; Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN (1)
RP SEQUENCE FROM N.A.
RA Simmons J.M., Daniel J.A., Matteri R.L., Keisler D.H.;
RL Submitted (SEP-1998) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: BELONGS TO THE NPY / PPY / PYY FAMILY.
DR EMBL; AF095782; AAC69886.1; -.
DR HSSP; P01303; IRON.
DR InterPro; IPR001955; Pancreatic_hormn.
DR Pfam; PF00159; hormone3; 1.
DR PRINTS; PR00278; PANCHORMONE.
DR ProDom; PD001267; Pancreatic_hormn; 1.
DR SMART; SM00309; PAH; 1.
DR PROSITE; PS00265; PANCREATIC_HORMONE_1; 1.
```





Tue Jul 30 10:09:18 2002

us-10-016-969-2.rspt

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GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: July 30, 2002, 08:00:32 ; Search time 51.48 Seconds  
(without alignments)  
73.359 Million cell updates/sec

Title: US-10-016-969-3  
Perfect score: 180  
Sequence: 1 IKPEAPGEDASPEELNRYASLRHLYLVTRQRY 34

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

arched: 747574 seqs, 111073796 residues  
Total number of hits satisfying chosen parameters: 747574

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : A\_Geneseq\_032802:\*

1: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1980.DAT:\*

2: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1981.DAT:\*

3: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1982.DAT:\*

4: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1983.DAT:\*

5: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1984.DAT:\*

6: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1985.DAT:\*

7: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1986.DAT:\*

8: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1987.DAT:\*

9: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1988.DAT:\*

10: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1989.DAT:\*

11: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1990.DAT:\*

12: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1991.DAT:\*

13: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1992.DAT:\*

14: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1993.DAT:\*

15: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1994.DAT:\*

16: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1995.DAT:\*

17: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1996.DAT:\*

18: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1997.DAT:\*

19: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1998.DAT:\*

20: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1999.DAT:\*

21: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA2000.DAT:\*

22: /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA2001.DAT:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	180	100.0	34	22	AAAB91224 Peptide YY SEQ ID
2	180	100.0	36	15	AAAR62050 Human peptide YY (
3	180	100.0	36	17	AAAR97741 Human peptide YY.
4	180	100.0	36	19	AAAW51801 Human peptide YY.
5	180	100.0	36	20	AAAY43335 Peptide Y. Synthe
6	180	100.0	36	21	AAAB12178 Human peptide YY.
7	180	100.0	36	21	AAAY87961 Human neuropeptide
8	180	100.0	36	21	AAAY87550 Human peptide YY (
9	180	100.0	36	22	AAAB91223 Peptide YY SEQ ID
10	180	100.0	36	22	AAU06188 Human peptide tyro
11	180	100.0	97	21	AAAB08020 Amino acid sequenc

12	180	100.0	176	22	AAAG75364	Human colon cancer
13	174	96.7	36	22	AAAB91109	Parathyroid hormon
14	171	95.0	36	15	AAAR62049	Porcine peptide YY
15	171	95.0	36	17	AAAR97740	Porcine peptide YY
16	171	95.0	36	18	AAAW51365	lhm-DNP-His261-PYY
17	171	95.0	36	19	AAAW51800	Porcine peptide YY
18	171	95.0	36	21	AAAY87549	Porcine peptide YY
19	171	95.0	36	22	AAAB91225	Peptide YY SEQ ID
20	171	95.0	36	22	AAAB91226	Peptide YY SEQ ID
21	171	95.0	36	22	AAU06187	Porcine peptide ty
22	166	92.2	36	11	AAAR07278	Porcine small inte
23	162	90.0	36	19	AAAW51808	Peptide YY analogu
24	156	86.7	36	11	AAAR07277	Porcine small inte
25	155	86.1	36	11	AAAR07276	Porcine small inte
26	155	86.1	36	20	AAAY50293	Neutrophil-activat
27	144	80.0	36	22	AAAB91222	Pancreatic polypep
28	143	79.4	36	16	AAAR87890	Neuropeptide Y ago
29	134	74.4	36	17	AAAW06955	Porcine neuropepti
30	134	74.4	36	17	AAAR97743	Porcine neuropepti
31	134	74.4	36	21	AAAY51550	Rat and porcine ne
32	134	74.4	36	22	AAAB97621	Porcine/Rat neupor
33	132	73.3	36	17	AAAR97742	Human neuropeptide
34	132	73.3	36	19	AAAW51823	Peptide YY analogu
35	132	73.3	36	21	AAAY51549	Human neuropeptide
36	132	73.3	36	22	AAAE06684	Human neuropeptide
37	132	73.3	36	22	AAAB97620	Human neuropeptide
38	132	73.3	36	22	AAAB91213	Neuropeptide Y pep
39	132	73.3	36	22	AAU06195	Mammalian neuropep
40	132	73.3	70	22	AAAE09439	Human sbghpyya pro
41	132	73.3	97	20	AAAY43334	Human prepro-neuro
42	132	73.3	97	20	AAAY23828	Human neuropeptide
43	132	73.3	97	21	AAAB35660	Human neuropeptide
44	132	73.3	97	21	AAAY57078	Human neuropeptide
45	132	73.3	97	22	AAE07919	Human neuropeptide

ALIGNMENTS

RESULT	ID	Peptide YY SEQ ID NO:398.	Description
1	AAAB91224	standard; Peptide; 34 AA.	
XX	AAAB91224;		
XX	22-JUN-2001	(first entry)	
XX	Peptide YY SEQ ID NO:398.		
XX	Protection; endogenous therapeutic peptide; peptidase; conjugation;		
XX	blood component; modification; succinimide; maleimide group; amino;		
XX	hydroxyl; thiol; hormone; growth factor; neurotransmitter.		
XX	Homo sapiens.		
XX	Synthetic.		
XX	WO200069900-A2.		
XX	23-NOV-2000.		
XX	17-MAY-2000; 2000WO-US13576.		
XX	17-MAY-1999; 99US-0134406.		
XX	10-SEP-1999; 99US-0153406.		
XX	15-OCT-1999; 99US-0159783.		
XX	(CONJ-) CONJUCHEM INC.		
XX	Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudau K;		
XX	WPI; 2001-112059/12.		
XX	Modifying and attaching therapeutic peptides to albumin prevents		

PT peptidase degradation, useful for increasing length of in vivo activity  
XX  
PS Disclosure; Page 328; 733pp; English.  
XX  
CC The present invention describes a modified therapeutic peptide (I)  
CC comprising a therapeutically active amino acid region (III) and a  
CC reactive group (II) (e.g. succinimide and maleimide groups) attached to  
CC a less therapeutically active amino acid region (IV), which covalently  
CC bonds with amino/hydroxyl/thiol groups on blood components to form a  
CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.  
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth  
CC factors and neurotransmitters, to protect them from peptidase activity  
CC in vivo for the treatment of various disorders. Endogenous therapeutic  
CC peptides are not suitable as drug candidates as they require frequent  
CC administration due to rapid degradation by peptidases in the body.  
CC Modifying and attaching therapeutic peptides to albumin prevents or  
CC reduces the action of peptidases to increase length of activity (half  
CC life) and specificity as bonding to large molecules decreases  
CC intracellular uptake and interference with physiological processes.  
CC AAB90829 to AAB92441 represent peptides which can be used in the  
exemplification of the present invention.

SQ Sequence 34 AA;

Query Match 100.0%; Score 180; DB 22; Length 34;  
Best Local Similarity 100.0%; Pred. No. 3.8e-19;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYVASLRHYLNLVTRQRY 34  
|||||  
Db 1 ikpeapedaspeelnryvaslrhylnlvtrqry 34

RESULT 2

ID AAR62050 standard; peptide; 36 AA.

XX AAR62050;

DT 14-JUN-1995 (first entry)

DE Human peptide YY (PYV).

KW Peptide YY; PYV; gastro-enterological disorders; intestinal water;  
KW electrolyte secretion; cell proliferation; nutrient transport;  
KW lipolysis; blood flow regulation.

XX Homo sapiens.

PN WO9422467-A.

PD 13-OCT-1994.

PF 29-MAR-1994; 94WO-US03380.

PR 29-MAR-1993; 93US-0038534.

PR 19-AUG-1993; 93US-0109326.

PA (UYCI-) UNIV CINCINNATI.

PI Balasubramanian A;

DR WPI; 1994-332815/41.

PT New peptide derivs. - useful as therapeutic agents, for treating  
PT gastro-enterological disorders

PS Disclosure; Page 3; 45pp; English.

CC AAR62050 describes the amino acid sequence of human peptide YY  
CC (PYV), which was isolated from the endocrine cells of the human

CC gastrointestional tract and pancreas. Using the equivalent porcine  
CC PYV sequence (AAR62049) as a base the PYV analogues described in  
CC AAR62051-R62082 were produced. The new peptides were found to have  
CC a variety of properties, that made them useful as therapeutic  
CC agents in the treatment of gastro-enterological disorders. As part  
CC of a therapeutic composition they could be used for decreasing  
CC excess intestinal water and electrolyte secretion, for regulating  
CC cell proliferation and augmenting nutrient transport, and for  
CC regulating lipolysis and blood flow.

SQ Sequence 36 AA;

Query Match 100.0%; Score 180; DB 15; Length 36;  
Best Local Similarity 100.0%; Pred. No. 4e-19;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYVASLRHYLNLVTRQRY 34  
|||||  
Db 3 ikpeapedaspeelnryvaslrhylnlvtrqry 36

RESULT 3

ID AAR97741 standard; peptide; 36 AA.

XX AAR97741;

DT 10-JAN-1997 (first entry)

DE Human peptide YY.

KW Peptide YY; PYV; porcine; human; intestine; endocrine cell; gut motility;  
KW gastrointestional tract; pancreas; inhibitor; intestinal secretion; pig;  
KW pancreatic tumour; blood flow; serous cyst adenoma; microcystic tumour;  
KW solid-cyst tumour; malignant tumour; therapy.

XX Homo sapiens.

PN WO9614854-A1.

PD 23-MAY-1996.

PF 03-NOV-1995; 95WO-US14303.

PR 14-NOV-1994; 94US-0338395.

PA (REGC ) UNIV CALIFORNIA.

PI Mcfadden DW;

DR WPI; 1996-259558/26.

PT Use of peptide YY and its agonists to treat pancreatic tumours -  
PT either in vitro or in vivo to reduce tumour cell proliferation

PS Disclosure; Page 3; 22pp; English.

CC AAR97740 and AAR97741 represent porcine and human peptide YY (PYV)  
CC respectively. This sequence is isolated from intestine, and is  
CC localised in the endocrine cells of the gastrointestional tract and the  
CC pancreas. PYV is thought to inhibit gut motility and blood flow, to  
CC mediate intestinal secretion, and stimulate net absorption. These  
CC sequences, and agonists against them (see AAR97742-R97744), can be used  
CC in the method of the invention. The method of the invention is for  
CC inhibiting pancreatic tumours by contacting them with an effective amount  
CC of one of these sequences. The method is effective in treating both  
CC benign and malignant pancreatic tumours. The types of benign tumour  
CC pancreatic tumours that can be treated, include, serous cyst adenomas,  
CC microcystic tumours, and solid-cyst tumours. The malignant tumours  
CC capable of being treated by the method of the invention include,  
CC carcinomas arising from the ducts, acini, or islets of the pancreas.



SQ Sequence 36 AA;

Query Match 100.0%; Score 180; DB 17; Length 36;  
Best Local Similarity 100.0%; Pred. No. 4e-19;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
Db 3 ikpeapgedaspeelnryaslrhylnlvtrqry 36

RESULT 4  
ID AAW51801 standard; peptide; 36 AA.  
AC AAW51801;  
XX

13-OCT-1998 (first entry)

DE Human peptide YV.

KW peptide YV; cell proliferation; nutrient transport; lipolysis;  
KW electrolyte secretion; anti-secretory; intestinal water; antimotility.

OS Homo sapiens.

PN WO9820885-A1.

PD 22-MAY-1998.

PF 13-NOV-1996; 96WO-US18374.

PR 13-NOV-1996; 96WO-US18374.

XX (UYCI-) UNIV CINCINNATI.

PI Balasubramaniam A;

DR WPI; 1998-322327/28.

PT New analogue(s) of peptide YV - used, e.g. to control cell  
PT proliferation, nutrient transport, lipolysis and intestinal water  
PT and electrolyte secretion

PS Disclosure; Page 3; 54pp; English.

CC The invention relates to peptide YV analogues which may be used e.g. for  
decreasing excess intestinal water and electrolyte secretion in mammals,  
to regulate cell proliferation (especially intestinal cell  
proliferation), to increase nutrient transport, to regulate lipolysis  
and to regulate blood flow. The peptides exhibit antisecretory and  
antimotility properties and are especially useful in treatment of  
gastrointestinal disorders associated with excess intestinal electrolyte  
and water secretion as well as decreased absorption. The new peptides  
are truncated versions of peptide YV. They interact solely with peptide  
YV receptors and not with homologous receptors such as NPY Y1 and Y3,  
thus minimising unwanted (ant)agonist side reactions. The present  
sequence represents human peptide YV.

SQ Sequence 36 AA;

Query Match 100.0%; Score 180; DB 19; Length 36;  
Best Local Similarity 100.0%; Pred. No. 4e-19;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
Db 3 ikpeapgedaspeelnryaslrhylnlvtrqry 36

RESULT 5

AAAY43335  
ID AAY43335 standard; peptide; 36 AA.  
XX

AC AAY43335;

DT 25-JAN-2000 (first entry)

DE Peptide Y.

KW Neuropeptide Y; NPY; agonist; peptide YV; PYY; airway restriction;  
KW bronchial disease; asthma; bronchitis; laryngitis; Alzheimer's disease;  
KW chronic rhinosinusitis; oedema; inflammation; congestive heart failure;  
KW cardiomyopathy; coronary arterial disease; myocardial infarction; AIDS;  
KW diminished cardiac vagal activity; hypertension; epilepsy; ischaemia;  
KW angina; immune response; antihistamine; therapy.

OS Synthetic.

PN WO9951626-A2.

PD 14-OCT-1999.

PF 26-MAR-1999; 99WO-EP02076.

PR 03-APR-1998; 98US-0054393.

PA (BMRA-) BMRA CORP BV.

PI Mutter M, Lacroix J, Grouzmann E;

DR WPI; 1999-620192/53.

PT New agonists of neuropeptide Y containing linear peptide linked to  
PT cyclic template peptide, used e.g. to reduce airway restriction in  
PT asthma

PS Disclosure; Page 42; 45pp; English.

CC This sequence represents peptide Y (PPY). The invention relates to  
neuropeptide Y (NPY) agonists comprising: (i) a template comprising a  
cyclic peptide (Ia) of 3-10 amino acids (aa) in which at least two  
residues are joined by a naphthyl ring; and (ii) at least one linear  
peptide (Ib) of 12-37 aa, bound to (i). The agonists, also NPY itself,  
the related sequence PYY and PYY agonists, are used to reduce airway  
restriction in patients with bronchial disease, especially asthma and  
bronchitis. The agonists may also be used: (i) to treat conditions  
responsive to NPY or PYY, e.g. laryngitis, chronic rhinosinusitis,  
oedema, inflammation, anxiety, congestive heart failure, cardiomyopathy,  
coronary arterial disease, diminished cardiac vagal activity,  
hypertension, Alzheimer's disease, epilepsy, ischaemia, angina,  
myocardial infarction, acquired immune deficiency syndrome and diseases  
characterised by reduced immune responses; and (ii) to increase body  
weight or as an antihistamine. The template induces folding of (Ib) into  
a biologically active form. Since (I) contain only the C-terminal region  
of NPY, they are selective for the Y2 receptor, i.e. they do produce the  
side effects associated with binding to the Y1 receptor.

SQ Sequence 36 AA;

Query Match 100.0%; Score 180; DB 20; Length 36;  
Best Local Similarity 100.0%; Pred. No. 4e-19;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
Db 3 ikpeapgedaspeelnryaslrhylnlvtrqry 36

RESULT 6  
ID AAB12178  
ID AAB12178 standard; peptide; 36 AA.  
XX

AC	AAB12178;
XX	
DT	20-JUN-2001 (first entry)
XX	
DE	Human peptide YY.
XX	
KW	Human; neuropeptide Y; luteinizing hormone; reproductive system;
KW	NPY; NPY-Y4 receptor; precocious puberty;
KW	polycystic ovary syndrome; endometriosis; benign prostatic hyperplasia;
KW	delayed puberty; amenorrhea; breast cancer; prostate cancer;
KW	peptide YY; PYY.
XX	
OS	Homo sapiens.
XX	
FH	Key
FT	Modified-site
FT	Location/Qualifiers
XX	36
XX	/note= "C-terminal amide"
PN	WO200030674-A1.
XX	
PD	02-JUN-2000.
XX	
PR	26-NOV-1999; 99WO-GB03963.
XX	
PR	26-NOV-1998; 98GB-0025969.
XX	
PA	13-MAY-1999; 99GB-0011178.
XX	
PI	(FERR ) FERRING BV.
XX	
DR	Broqua P, Akinsanya K, Hayward A;
XX	
DJ	WPI; 2000-399931/34.
PT	Treating human reproductive disorders such as amenorrhea, delayed
PT	puberty, polycystic ovary syndrome and endometriosis, comprises
PT	administering a neuropeptide Y-Y4 receptor ligand -
XX	
PS	Disclosure; Page 2; 17pp; English.
XX	
CC	Neuropeptide Y (NPY) (AAB12177) has a number of effects on the
CC	reproductive system. NPY is one of a family of neuropeptides. Other
CC	members of the family include the present sequence, peptide YY (PYY), and
CC	pancreatic polypeptide (PP, see AAB12179 and AAB12180). Selective NPY-Y4
CC	receptor agonists have been found (see AAB12181 to AAB12183). The NPY-Y4
CC	receptor agonists cause an increase in the circulating levels of
CC	luteinizing hormone (LH) and hence improve the fertility of animals with
CC	compromised reproductive function. The NPY-Y4 agonists may be used to
CC	treat human reproductive disorders such as delayed puberty and
CC	amenorrhea. In addition, NPY-Y4 antagonists may be used to treat human
CC	reproductive disorders such as precocious puberty, endometriosis,
CC	polycystic ovary syndrome, benign prostatic hyperplasia and
CC	hormone-dependent neoplasias e.g. breast cancer and prostate cancer. The
CC	present sequence was used in a sequence homology comparison.
XX	
SQ	Sequence 36 AA;
XX	
Query Match	100.0%; Score 180; DB 21; Length 36;
Best Local Similarity	100.0%; Pred. No. 4e-19;
Matches 34; Conservative	0; Mismatches 0; Indels 0; Gaps 0;
OY	1 IKPEAPGEDASPEELNRYASLRHYLNLVTRORY 34
Ib	 3 ikpeapedaspeelnrlyaslhylnlvtrqry 36
RESULT	7
ID	AAy87961
XX	AAy87961 standard; peptide; 36 AA.
AC	
XX	
DT	18-SEP-2000 (first entry)

XX	Human neuropeptide PPV fragment.
DE	
XX	
KW	Neuropeptide; human; treatment; reproductive disorder; neuropeptide Y;
KW	endocrine; gynecological; cytostatic; puberty; endometriosis;
KW	polycystic ovary syndrome; prostatic hyperplasia; amenorrhoea.
XX	
OS	Homo sapiens.
XX	
PN	GB2344050-A.
XX	
PD	31-MAY-2000.
XX	
PF	26-NOV-1998; 98GB-0025969.
XX	
PR	26-NOV-1998; 98GB-0025969.
XX	
PA	(FERR ) FERRING BV.
XX	
PI	Akinsanya K, Hayward A, Broqua P;
XX	
DR	WPI; 2000-331548/29.
XX	
PT	Compositions containing a neuropeptide Y Y4 receptor ligand selective
PT	for the hypothalamic-pituitary-gonadal axis, for treatment of
PT	reproductive disorders e.g. delayed or precocious puberty,
PT	endometriosis and benign prostatic hyperplasia -
XX	
PS	Disclosure; Page 2; 12pp; English.
XX	
CC	This invention describes the novel use of a composition containing a
CC	neuropeptide Y (NPY) Y4 receptor ligand for treatment of human
CC	reproductive disorders. The products described in the invention have
CC	endocrine, gynecological and cytostatic activity and can be used for the
CC	treatment of reduced reproductive function, delayed puberty, supranormal
CC	function of the reproductive organs, precocious puberty, endometriosis,
CC	polycystic ovary syndrome, benign prostatic hyperplasia, impaired
CC	reproductive function or amenorrhoea. This sequence represents the human
CC	PPV neuropeptide which is used in the method of the invention.
XX	
SQ	Sequence 36 AA;
	Query Match 100.0%; Score 180; DB 21; Length 36;
	Best Local Similarity 100.0%; Pred. No. 4e-19;
	Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY	1 IKPEAPGEDASPEELNRYIASLRHYLNLVTRQRY 34
Db	3 ikpeapedaspeelnryiaslrhylnlvtrqry 36
RESULT 8	
AY87550	
ID	AA87550 standard; peptide; 36 AA.
XX	
AC	AA87550;
XX	
DT	18-JUL-2000 (first entry)
XX	
DE	Human peptide Y (PPV).
XX	
KW	PPV; peptide YY; human; electrolyte secretion; fluid secretion;
KW	nutrient uptake; lipolysis; vasoconstriction; gastrointestinal disorder;
KW	diarrhoea; Crohn's disease; irritable bowel syndrome; ileostomy;
KW	cachexia.
XX	
OS	Homo sapiens.
XX	
FH	Key Location/Qualifiers
FT	Modified-site 36
FT	/note= "C-terminal amide"
XX	

PN US6046167-A.  
XX  
PD 04-APR-2000.  
XX  
PF 25-MAR-1998; 98US-0047986.  
XX  
PR 25-MAR-1998; 98US-0047986.  
XX  
PA (UYCI-) UNIV CININNATI.  
XX  
PI Balasubramaniam A;  
XX  
DR WPI; 2000-327889/28.  
XX  
PT New peptide YY analogs especially useful for treating gastrointestinal  
PT disorders associated with excess intestinal electrolytes and water  
PT secretion, and decreased absorption, e.g. infectious and inflammatory  
PT diarrhea  
XX  
XX Disclosure; Column 2; 18pp; English.

XX The invention relates to novel peptide YY (PY) analogues  
CC (AAY87551-Y87564 and AAY87568) that can be used for the treatment of  
CC gastrointestinal disorders. PY (AAY87549, AAY87550) is a 36 residue  
CC peptide amide that is released into the circulation after a meal and  
CC which is thought to play a role in regulating intestinal secretion and  
CC absorption. It binds to a receptor on intestinal epithelial cells, and  
CC inhibits intestinal secretion and gut motility. It is therefore a natural  
CC inhibitor of diarrhoea. PY has also been implicated in nutrient uptake,  
CC cell proliferation, lipolysis and vasoconstriction. The compounds of the  
CC invention are useful for inhibiting fluid and electrolyte secretion in  
CC the small intestine; augmenting nutrient transport; increasing cell  
CC proliferation in the gastrointestinal tract; regulating lipolysis in,  
CC for example, adipose tissue; and regulating blood flow in mammals. The  
CC analogues are especially useful in the treatment of gastrointestinal  
CC disorders associated with excess intestinal electrolytes and water  
CC secretion, as well as decreased absorption. For example, they are useful  
CC in treating acute viral or bacterial diarrhoea, diarrhoea due to  
CC protozoal infections, travellers' diarrhoea; inflammatory diarrhoea  
CC (e.g., Crohn's disease, irritable bowel syndrome); short bowel syndrome;  
CC or diarrhoea following ileostomy. The peptides can also be used to treat  
CC an emergency or life-threatening situation involving a gastrointestinal  
CC disorder, e.g., after surgery or due to cholera; and to treat intestinal  
CC dysfunction in patients with AIDS, especially those with cachexia. As  
CC the PY analogues are shorter than naturally occurring PY, synthesis  
CC and purification of the compounds is easier and less costly. The  
CC analogues interact specifically with PY receptors and not with receptors  
CC for the PY homologous neuropeptide Y (NPY), thus minimising unwanted  
CC side reactions. The present sequence represents human PY.

XX Sequence 36 AA;  
SQ

Query Match 100.0%; Score 180; DB 21; Length 36;  
Best Local Similarity 100.0%; Pred. No. 4e-19;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||  
Db 3 ikpeapgedaspeelnryaslrhylnlvtrqry 36

RESULT 9  
AAB91223  
ID AAB91223 standard; Peptide: 36 AA.  
XX  
AC AAB91223;  
XX  
DT 22-JUN-2001 (first entry)  
XX  
DE Peptide YY SEQ ID NO:397.  
XX  
KW Protection; endogenous therapeutic peptide; peptidase; conjugation;

KW blood component; modification; succinimidy; maleimido group; amino;  
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.  
XX  
OS Homo sapiens.  
OS Synthetic.  
XX  
PN WO200069900-A2.  
XX  
PD 23-NOV-2000.  
XX  
PF 17-MAY-2000; 2000WO-US13576.  
XX  
PR 17-MAY-1999; 99US-0134406.  
PR 10-SEP-1999; 99US-0153406.  
PR 15-OCT-1999; 99US-0159783.  
XX  
PA (CONJ-) CONJUCHEM INC.  
XX  
PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudau K;  
XX  
DR WPI; 2001-112059/12.

PT Modifying and attaching therapeutic peptides to albumin prevents  
PT peptidase degradation, useful for increasing length of in vivo activity  
PT  
XX  
XX Disclosure; Page 327-328; 733pp; English.

XX The present invention describes a modified therapeutic peptide (I)  
CC comprising a therapeutically active amino acid region (II) and a  
CC reactive group (III) (e.g. succinimidy and maleimido groups) attached to  
CC a less therapeutically active amino acid region (IV), which covalently  
CC bonds with amino/hydroxyl/thiol groups on blood components to form a  
CC peptide stabilised therapeutic peptide composed of 3-50 amino acids.  
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth  
CC factors and neurotransmitters, to protect them from peptidase activity  
CC in vivo for the treatment of various disorders. Endogenous therapeutic  
CC peptides are not suitable as drug candidates as they require frequent  
CC administration due to rapid degradation by peptidases in the body.  
CC Modifying and attaching therapeutic peptides to albumin prevents or  
CC reduces the action of peptidases to increase length of activity (half  
CC life) and specificity as bonding to large molecules decreases  
CC intracellular uptake and interference with physiological processes.  
CC AAB90829 to AAB92441 represent peptides which can be used in the  
CC exemplification of the present invention.

XX Sequence 36 AA;  
SQ

Query Match 100.0%; Score 180; DB 22; Length 36;  
Best Local Similarity 100.0%; Pred. No. 4e-19;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||  
Db 3 ikpeapgedaspeelnryaslrhylnlvtrqry 36

RESULT 10  
AAU06188  
ID AAU06188 standard; peptide: 36 AA.  
XX  
AC AAU06188;  
XX  
DT 04-DEC-2001 (first entry)  
XX  
DE Human peptide tyrosine-tyrosine (PY).  
XX  
KW Human; brain aluminium concentration; central nervous system;  
KW CNS; peptide tyrosine-tyrosine receptor; PY receptor; PP receptor;  
KW pancreatic polypeptide receptor; Alzheimer's disease; nootropic;  
KW neuro protective.  
XX



OS Homo sapiens.  
XX  
PN WO200158409-A2.  
XX  
PD 16-AUG-2001.  
XX  
PF 07-FEB-2001; 2001WO-US03952.  
XX  
PR 08-FEB-2000; 2000US-0499980.  
XX  
PA (UYNC-) UNIV NORTH CAROLINA STATE.  
XX  
PI Croom WJ, Berg BM, Taylor IL;  
XX  
DR WPI; 2001-550001/61.  
XX  
PT Reducing aluminium levels in the central nervous system, for the  
PT treatment of Alzheimer's disease comprises administration of a peptide  
PT tyrosine receptor agonist or a pancreatic polypeptide receptor agonist  
XX  
XX Disclosure; Page 7; 52pp; English.  
XX  
CC The present invention relates to a method of reducing aluminium levels  
CC in the central nervous system (CNS). The method comprises administration  
CC of a peptide tyrosine-tyrosine (PYT) receptor agonist or a pancreatic  
CC polypeptide (PP) receptor agonist. The method is useful for the  
CC treatment of Alzheimer's disease and for reducing aluminium levels in  
CC the central nervous system, especially the brain, of a subject. The  
CC treatments are effective and do not impart excessive toxicological  
CC effects. The present sequence represents human PYT.  
XX  
SQ Sequence 36 AA;  
XX  
Query Match 100.0%; Score 180; DB 22; Length 36;  
Best Local Similarity 100.0%; Pred. No. 4e-19;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 3 ikpeapgedaspeelnryaslrhylnlvtrqry 36  
XX  
RESULT 11  
AAB08020  
ID AAB08020 standard; Protein; 97 AA.  
XX  
AC AAB08020;  
XX  
DE 14-NOV-2000 (first entry)  
XX  
DE Amino acid sequence of a human peptide YR (PYR).  
XX  
KW Peptide YR; PYR; pancreatic cell growth; pancreatic tissue degeneration;  
KW glucose metabolism; insulin resistance; glucose intolerance;  
KW glucose non-responsiveness; hyperglycemia; obesity; hyperlipidemia;  
KW hyperfiltration; type II diabetes mellitus.  
XX  
OS Homo sapiens.  
XX  
FH Key Location/Qualifiers  
FT Peptide 1..28  
FT Protein /note= "signal peptide"  
FT 29..97  
FT /note= "mature protein"  
XX  
PN WO200047219-A2.  
XX  
PD 17-AUG-2000.  
XX  
PF 10-FEB-2000; 2000WO-US03391.  
XX

PR 10-FEB-1999; 99US-0119577.  
XX  
PA (ONTO-) ONTOGENY INC.  
XX  
PI Pang K, Lu H;  
XX  
DR WPI; 2000-565257/52.  
DR N-PSDB; AAA59713.  
XX  
PT Promoting the growth of pancreatic cells and reducing degeneration of  
PT pancreatic tissue for treating a disease associated with altered  
PT glucose metabolism comprises contacting with a composition including  
PT (an agonist of) peptide YR -  
XX  
XX Disclosure; Page 82-83; 83pp; English.  
XX  
CC The present sequence represents a human peptide YR (PYR). PYR triggers  
CC gain of function in glucose non-responsive foetal and adult islets which  
CC leads to glucose responsiveness. The specification describes a method for  
CC promoting the growth of pancreatic cells and reducing degeneration of  
CC pancreatic tissue. The method comprises contacting pancreatic cells  
CC or tissue with a composition including PYR or an agonist of PYR. The  
CC method is used for treating a disease, especially in a human, associated  
CC with altered glucose metabolism, especially insulin resistance, glucose  
CC intolerance or glucose non-responsiveness, hyperglycemia, obesity,  
CC hyperlipidemia, hyperfiltration or type II diabetes mellitus.  
XX  
SQ Sequence 97 AA;  
XX  
Query Match 100.0%; Score 180; DB 21; Length 97;  
Best Local Similarity 100.0%; Pred. No. 1.4e-18;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 31 ikpeapgedaspeelnryaslrhylnlvtrqry 64  
XX  
RESULT 12  
AAG75364  
ID AAG75364 standard; Protein; 176 AA.  
XX  
AC AAG75364;  
XX  
DT 03-SEP-2001 (first entry)  
XX  
DE Human colon cancer antigen protein SEQ ID NO:6128.  
XX  
KW Human; colon cancer; colon cancer antigen; diagnosis; detection;  
KW colorectal carcinoma; chromosome 17.  
XX  
OS Homo sapiens.  
XX  
PN WO200122920-A2.  
XX  
PD 05-APR-2001.  
XX  
PF 28-SEP-2000; 2000WO-US26524.  
XX  
PR 29-SEP-1999; 99US-0157137.  
PR 03-NOV-1999; 99US-0163280.  
XX  
PA (HUMA-) HUMAN GENOME SCI INC.  
XX  
PI Ruben SM, Barash SC, Birse CE, Rosen CA;  
XX  
DR WPI; 2001-235357/24.  
DR N-PSDB; AAH34769.  
XX  
PT Nucleic acids encoding 4277 human colon cancer-associated polypeptides;  
PT useful for preventing, diagnosing and/or treating colorectal cancers -  
XX



PS Claim 11; Page 7579-7580; 9803pp; English.

XX  
CC AAH32943 to AAH37195 and AAG73514 to AAG77788 represent human colon  
CC cancer-associated nucleic acid molecules (N) and proteins (P), where  
CC the proteins are collectively known as colon cancer antigens. The colon  
CC cancer antigens have cytostatic activity and can be used in gene  
CC therapy and vaccine production. N and P may be used in the prevention,  
CC diagnosis and treatment of diseases associated with inappropriate P  
CC expression. For example, N and P may be used to treat disorders  
CC associated with decreased expression by rectifying mutations or deletions  
CC in a patient's genome that affect the activity of P by expressing  
CC inactive proteins or to supplement the patient's own production of P.  
CC Additionally, N may be used to produce the colon cancer-associated PS,  
CC by inserting the nucleic acids into a host cell and culturing the cell  
CC to express the proteins. N and P can be used in the prevention, diagnosis  
CC and treatment of colorectal carcinomas and cancers. AAH37196 to AAH37204  
CC and AAB77789 represent sequences used in the exemplification of the  
CC present invention.  
CC N.B. Pages 666 to 682 and page 7053 of the sequence listing were  
CC missing at time of publication, meaning no sequences are present for  
CC SEQ ID NO:1027 to 1052, 7921 and 7922.

XX  
SQ Sequence 176 AA;

Query Match 100.0%; Score 180; DB 22; Length 176;  
Best Local Similarity 100.0%; Pred. No. 2.9e-18;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
Db 55 ikpeapedaspeelnryaslrhylnlvtrqry 88

#### RESULT 13

AAB91109  
ID AAB91109 standard; Peptide; 36 AA.

XX  
AC AAB91109;

XX  
DT 22-JUN-2001 (first entry)

XX  
DE Parathyroid hormone (PTH) related peptide SEQ ID NO:283.

XX  
KW Protection; endogenous therapeutic peptide; peptidase; conjugation;  
KW blood component; modification; succinimide; maleimide group; amino;  
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.

XX  
OS Homo sapiens.  
OS Synthetic.

XX  
PN WO200069900-A2.

XX  
PD 23-NOV-2000.

XX  
PE 17-MAY-2000; 2000WO-US13576.

XX  
PR 17-MAY-1999; 99US-0134406.

XX  
PR 10-SEP-1999; 99US-0153406.

XX  
PR 15-OCT-1999; 99US-0159783.

XX  
PA (CONJ-) CONJUCHEM INC.

XX  
PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudau K;

XX  
DR WPI; 2001-112059/12.

XX  
PT Modifying and attaching therapeutic peptides to albumin prevents  
PT peptidase degradation, useful for increasing length of in vivo activity

PS Disclosure; Page 285; 733pp; English.

CC The present invention describes a modified therapeutic peptide (I)  
CC comprising a therapeutically active amino acid region (III) and a  
CC reactive group (II) (e.g. succinimide and maleimide groups) attached to  
CC a less therapeutically active amino acid region (IV), which covalently  
CC bonds with amino/hydroxyl/thiol groups on blood components to form a  
CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.  
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth  
CC factors and neurotransmitters, to protect them from peptidase activity  
CC in vivo for the treatment of various disorders. Endogenous therapeutic  
CC peptides are not suitable as drug candidates as they require frequent  
CC administration due to rapid degradation by peptidases in the body.  
CC Modifying and attaching therapeutic peptides to albumin prevents or  
CC reduces the action of peptidases to increase length of activity (half  
CC life) and specificity as bonding to large molecules decreases  
CC intracellular uptake and interference with physiological processes.  
CC AAB90829 to AAB92441 represent peptides which can be used in the  
CC exemplification of the present invention.

XX  
SQ Sequence 36 AA;

Query Match 96.7%; Score 174; DB 22; Length 36;  
Best Local Similarity 97.1%; Pred. No. 3e-18;  
Matches 33; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

OY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
Db 3 ikpeapedaspeelnryaslrhylnlvtrpy 36

#### RESULT 14

AAR62049  
ID AAR62049 standard; peptide; 36 AA.

XX  
AC AAR62049;

XX  
DT 14-JUN-1995 (first entry)

XX  
DE Porcine peptide YY (PYY).

XX  
KW Peptide YY; PYY; gastro-enterological disorders; intestinal water;  
KW electrolyte secretion; cell proliferation; nutrient transport;  
KW lipolysis; blood flow regulation.

XX  
OS Sus scrofa.

XX  
PN WO9422467-A.

XX  
PD 13-OCT-1994.

XX  
PF 29-MAR-1994; 94WO-US03380.

XX  
PR 29-MAR-1993; 93US-0038534.

XX  
PR 19-AUG-1993; 93US-0109326.

XX  
PA (UYCI-) UNIV CINCINNATI.

XX  
PI Balasubramaniam A;

XX  
DR WPI; 1994-332815/41.

XX  
PT New peptide derivs. - useful as therapeutic agents, for treating  
PT gastro-enterological disorders

XX  
PS Disclosure; Page 3; 45pp; English.

XX  
CC AAR62049 describes the amino acid sequence of porcine peptide YY  
CC (PYY), which was isolated from the endocrine cells of the porcine  
CC gastrointestinal tract and pancreas. Using this sequence as a base  
CC the PYY analogues described in AAR62051-R62082 were produced. The  
CC new peptides were found to have a variety of properties, that made  
CC them useful as therapeutic agents in the treatment of  
CC gastro-enterological disorders. As part of a therapeutic

CC composition they could be used for decreasing excess intestinal  
CC water and electrolyte secretion, for regulating cell proliferation  
CC and augmenting nutrient transport, and for regulating lipolysis  
CC and blood flow.  
xx  
SQ Sequence 36 AA;

Query Match	95.0%;	Score 171;	DB 15;	Length 36;
Best Local Similarity	97.0%;	pred. No. 8.4e-18;		
Matches	32;	Conservative	1;	Mismatches 0;
			Indels	0;
			Gaps	0;

QY	2	KPEAPGEDASPEELNRYIASLRHYLNLTQRQY	34
		:	
Db	4	kpeapgedaspeelsryaslrhylnltvtrqy	36

```

RESULT 15
AAR97740
ID AAR97740 standard; peptide; 36 AA.
vv

```

AAR97740;  
09-JAN-1997 (first entry)

DE Porcine peptide YY.

peptide YY; PYY; porcine; human; intestine; endocrine cell; gut motility;  
gastrointestinal tract; pancreas; inhibitor; intestinal secretion; pig;  
pancreatic tumour; blood flow; serous cyst adenoma; microcystic tumour;  
solid-cyst tumour; malignant tumour; therapy.

OS Sus scrofa.

PN W09614854-A1.

PD 23-MAY-1996.

PF 03-NOV-1995; 95WO-US14303.

PR 14-NOV-1994; 94US-0338395.

PA (REGC ) UNIV CALIFORNIA.

PI Mcfadden DW;

DR WPI; 1996-259558/26.

Use of peptide YY and its agonists to treat pancreatic tumours - either in vitro or in vivo to reduce tumour cell proliferation

Disclosure; Page 3; 22pp; English.

CC AAR91740 and AAR91741 represent porcine and human peptide YY (PYY)  
CC respectively. This sequence is isolated from intestine, and is  
CC localised in the endocrine cells of the gastrointestinal tract and the  
CC pancreas. PYY is thought to inhibit gut motility and blood flow, to  
CC mediate intestinal secretion, and stimulate net absorption. These  
CC sequences, and agonists against them (see AAR91742-R91774), can be used  
CC in the method of the invention. The method of the invention is for  
CC inhibiting pancreatic tumours by contacting them with an effective amount  
CC of one of these sequences. The method is effective in treating both  
CC benign and malignant pancreatic tumours. The types of benign tumour  
CC pancreatic tumours that can be treated, include, serous cyst adenomas,  
CC microcystic tumours, and solid-cyst tumours. The malignant tumours  
CC capable of being treated by the method of the invention include,  
CC carcinomas arising from the ducts, acini, or islets of the pancreas.

Sequence 36 AA;

Query Match	95.0%;	Score 171;	DB 17;	Length 36;
Best Local Similarity	97.0%;	Pred. No. 8.4e-18;		

	Matches	32;	Conservative	1;	Mismatches	0;	Indels	0;	Gaps	0;
QY	2	KPEAPGEDASPEELNRYVASLRHYLNLVTRQR	34	:						
Db	4	kpeapgedaspeelstryyaslrhylnlvtrqry	36							

Search completed: July 30, 2002, 08:00:33  
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GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: July 30, 2002, 07:59:32 ; Search time 51.48 seconds  
(without alignments)  
77.674 Million cell updates/sec

Title: US-10-016-969-2  
Perfect score: 194  
Sequence: 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

Scoring table:  
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Gapop 10.0 , Gapext 0.5

Searched: 747574 seqs, 111073796 residues  
Total number of hits satisfying chosen parameters: 747574

Minimum DB seq length: 0  
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Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	194	100.0	36	15	AAAR62050
2	194	100.0	36	17	AAAR62050
3	194	100.0	36	19	AAAR62050
4	194	100.0	36	20	AAAR62050
5	194	100.0	36	21	AAAR62050
6	194	100.0	36	21	AAAR62050
7	194	100.0	36	21	AAAR62050
8	194	100.0	36	22	AAAR62050
9	194	100.0	36	22	AAAR62050
10	194	100.0	36	22	AAAR62050
11	194	100.0	36	22	AAAR62050

12	188	96.9	36	22	AAAR62050	Parathyroid hormone
13	185	95.4	36	22	AAAR62050	Peptide YY SEQ ID
14	184	94.8	36	17	AAAR62049	Porcine peptide YY
15	184	94.8	36	17	AAAR62049	Porcine peptide YY
16	184	94.8	36	18	AAAR62049	Porcine peptide YY
17	184	94.8	36	19	AAAR62049	Porcine peptide YY
18	184	94.8	36	21	AAAR62049	Porcine peptide YY
19	184	94.8	36	22	AAAR62049	Porcine peptide YY
20	184	94.8	36	22	AAAR62049	Porcine peptide YY
21	180	92.8	34	22	AAAR62049	Peptide YY SEQ ID
22	177	91.2	36	11	AAAR62049	Peptide YY SEQ ID
23	175	90.2	36	19	AAAR62049	Peptide YY analog
24	168	86.6	36	11	AAAR62049	Peptide YY analog
25	166	85.6	36	20	AAAR62049	Neutrophil-activat
26	160	82.5	36	11	AAAR62049	Porcine small inte
27	155	79.9	36	16	AAAR62049	Neuropeptide Y
28	155	79.9	36	22	AAAR62049	Pancreatic polypep
29	146	75.3	36	17	AAAR62049	Porcine neuropti
30	146	75.3	36	17	AAAR62049	Porcine neuropti
31	146	75.3	36	21	AAAR62049	Rat and porcine ne
32	146	75.3	36	22	AAAR62049	Human neuroptide
33	144	74.2	36	17	AAAR62049	Human neuroptide
34	144	74.2	36	19	AAAR62049	Human neuroptide
35	144	74.2	36	21	AAAR62049	Human neuroptide
36	144	74.2	36	22	AAAR62049	Human neuroptide
37	144	74.2	36	22	AAAR62049	Human neuroptide
38	144	74.2	36	22	AAAR62049	Human neuroptide
39	144	74.2	36	22	AAAR62049	Human neuroptide
40	144	74.2	36	20	AAAR62049	Human neuroptide
41	144	74.2	36	20	AAAR62049	Human neuroptide
42	144	74.2	36	21	AAAR62049	Human neuroptide
43	144	74.2	36	21	AAAR62049	Human neuroptide
44	144	74.2	36	22	AAAR62049	Human neuroptide
45	144	74.2	36	22	AAAR62049	Human neuroptide

ALIGNMENTS

RESULT 1	
AAAR62050	standard; peptide; 36 AA.
AC	AAAR62050;
XX	
DT	14-JUN-1995 (first entry)
XX	
DE	Human peptide YY (PYV).
XX	
KW	Peptide YY; PYV; gastro-enterological disorders; intestinal water;
KW	electrolyte secretion; cell proliferation; nutrient transport;
KW	lipolysis; blood flow regulation.
XX	
OS	Homo sapiens.
XX	
PN	WO9422467-A.
XX	
PD	13-OCT-1994.
XX	
PF	29-MAR-1994; 94WO-US03380.
XX	
PR	29-MAR-1993; 93US-0038534.
PR	19-AUG-1993; 93US-0109326.
PA	(UYCI-) UNIV CINCINNATI.
XX	
PI	Balasubramaniam A;
XX	
DR	WPI; 1994-332815/41.
XX	
PT	New peptide derivs. - useful as therapeutic agents, for treating
PT	gastro-enterological disorders

PS Disclosure; Page 3; 45pp; English.

XX AAR62050 describes the amino acid sequence of human peptide YR  
CC (PYR), which was isolated from the endocrine cells of the human  
CC gastrointestinal tract and pancreas. Using the equivalent porcine  
CC PYR sequence (AAR62049) as a base the PYR analogues described in  
CC AAR62051-R62082 were produced. The new peptides were found to have  
CC a variety of properties that made them useful as therapeutic  
CC agents in the treatment of gastro-enterological disorders. As part  
CC of a therapeutic composition they could be used for decreasing  
CC excess intestinal water and electrolyte secretion, for regulating  
CC cell proliferation and augmenting nutrient transport, and for  
CC regulating lipolysis and blood flow.

XX Sequence 36 AA;

DB 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
1 ypikeapgedaspeelnryaslrhynlvtrqry 36

RESULT 2

AA97741  
ID AAR97741 standard; peptide; 36 AA.

XX AAR97741;

AC AAR97741;

XX 10-JAN-1997 (first entry)

DE Human peptide YR.

XX Peptide YR; PYR; porcine; human; intestine; endocrine cell; gut motility;  
KW gastrointestinal tract; pancreas; inhibitor; intestinal secretion; pig;  
KW pancreatic tumour; blood flow; serous cyst adenoma; microcystic tumour;  
KW solid-cyst tumour; malignant tumour; therapy.

XX Homo sapiens.

OS WO9614854-A1.

XX 23-MAY-1996.

PD 03-NOV-1995; 95WO-US14303.

XX 14-NOV-1994; 94US-0338395.

XX (REGC ) UNIV CALIFORNIA.

XX Mcfadden DW;

XX WPI; 1996-259558/26.

XX Use of peptide YR and its agonists to treat pancreatic tumours -  
PT either in vitro or in vivo to reduce tumour cell proliferation

XX Disclosure; Page 3; 22pp; English.

XX AAR97740 and AAR97741 represent porcine and human peptide YR (PYR)  
CC respectively. This sequence is isolated from intestine, and is  
CC localised in the endocrine cells of the gastrointestinal tract and the  
CC pancreas. PYR is thought to inhibit gut motility and blood flow, to  
CC mediate intestinal secretion, and stimulate net absorption. These  
CC sequences, and agonists against them (see AAR97742-R97744), can be used  
CC in the method of the invention. The method of the invention is for  
CC inhibiting pancreatic tumours by contacting them with an effective amount  
CC of one of these sequences. The method is effective in treating both  
CC benign and malignant pancreatic tumours. The types of benign tumour  
CC pancreatic tumours that can be treated, include, serous cyst adenomas,

CC microcystic tumours, and solid-cyst tumours. The malignant tumours  
CC capable of being treated by the method of the invention include,  
CC carcinomas arising from the ducts, acini, or islets of the pancreas.

XX Sequence 36 AA;

DB 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
1 ypikeapgedaspeelnryaslrhynlvtrqry 36

Query Match 100.0%; Score 194; DB 17; Length 36;  
Best Local Similarity 100.0%; Pred. No. 2.2e-20;  
Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
1 ypikeapgedaspeelnryaslrhynlvtrqry 36

RESULT 3

AAW51801  
ID AAW51801 standard; peptide; 36 AA.

XX AAW51801;

AC AAW51801;

XX 13-OCT-1998 (first entry)

DE Human peptide YR.

XX Peptide YR; cell proliferation; nutrient transport; lipolysis;  
KW electrolyte secretion; anti-secretory; intestinal water; antimotility.

XX Homo sapiens.

OS WO9820885-A1.

XX 22-MAY-1998.

PD 13-NOV-1996; 96WO-US18374.

XX 13-NOV-1996; 96WO-US18374.

PR 13-NOV-1996; 96WO-US18374.

XX (UYCI-) UNIV CINCINNATI.

XX Balasubramaniam A;

PI WPI; 1998-322327/28.

XX New analogue(s) of peptide YR - used, e.g. to control cell  
PT proliferation, nutrient transport, lipolysis and intestinal water  
PT and electrolyte secretion

XX Disclosure; Page 3; 54pp; English.

XX The invention relates to peptide YR analogues which may be used e.g. for  
CC decreasing excess intestinal water and electrolyte secretion in mammals,  
CC to regulate cell proliferation (especially intestinal cell  
CC proliferation), to increase nutrient transport, to regulate lipolysis  
CC and to regulate blood flow. The peptides exhibit antisecretory and  
CC antimotility properties and are especially useful in treatment of  
CC gastrointestinal disorders associated with excess intestinal electrolyte  
CC and water secretion as well as decreased absorption. The new peptides  
CC are truncated versions of peptide YR. They interact solely with peptide  
CC YR receptors and not with homologous receptors such as NPY Y1 and Y3,  
CC thus minimising unwanted (ant)agonist side reactions. The present  
CC sequence represents human peptide YR.

XX Sequence 36 AA;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
1 ypikeapgedaspeelnryaslrhynlvtrqry 36

Query Match 100.0%; Score 194; DB 19; Length 36;  
Best Local Similarity 100.0%; Pred. No. 2.2e-20;  
Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 yplikpeapedaspeelnryaslrhynlvtrqry 36

## RESULT 4

AAY43335

ID AAY43335 standard; peptide; 36 AA.

XX AAY43335;

DT 25-JAN-2000 (first entry)

DE Peptide Y.

Neuropeptide Y; NPY; agonist; peptide YY; PYY; airway restriction; bronchial disease; asthma; bronchitis; laryngitis; Alzheimer's disease; chronic rhinosinusitis; oedema; inflammation; congestive heart failure; cardiomyopathy; coronary arterial disease; myocardial infarction; AIDS; diminished cardiac vagal activity; hypertension; epilepsy; ischaemia; angina; immune response; antihistamine; therapy.

XX Synthetic.

PN WO951626-A2.

PD 14-OCT-1999.

PF 26-MAR-1999; 99WO-EP02076.

PR 03-APR-1998; 98US-0054393.

PA (BMRA-) BMRA CORP BV.

PI Mutter M, Lacroix J, Grouzmann E;

DR WPI; 1999-620192/53.

New agonists of neuropeptide Y containing linear peptide linked to cyclic template peptide, used e.g. to reduce airway restriction in asthma

PS Disclosure; Page 42; 45pp; English.

This sequence represents peptide Y (PPY). The invention relates to neuropeptide Y (NPY) agonists comprising: (i) a template comprising a cyclic peptide (Ia) of 3-10 amino acids (aa) in which at least two residues are joined by a naphthyl ring; and (ii) at least one linear peptide (Ib) of 12-37 aa, bound to (i). The agonists, also NPY itself, the related sequence PYY and PYY agonists, are used to reduce airway restriction in patients with bronchial disease, especially asthma and bronchitis. The agonists may also be used: (i) to treat conditions responsive to NPY or PYY, e.g. laryngitis, chronic rhinosinusitis, oedema, inflammation, anxiety, congestive heart failure, cardiomyopathy, coronary arterial disease, diminished cardiac vagal activity, hypertension, Alzheimer's disease, epilepsy, ischaemia, angina, myocardial infarction, acquired immune deficiency syndrome and diseases characterised by reduced immune responses; and (ii) to increase body weight or as an antihistamine. The template induces folding of (Ib) into a biologically active form. Since (I) contain only the C-terminal region of NPY, they are selective for the Y2 receptor, i.e. they do produce the side effects associated with binding to the Y1 receptor.

SQ Sequence 36 AA;

Query Match 100.0%; Score 194; DB 20; Length 36;

Best Local Similarity 100.0%; Pred. No. 2.2e-20;

Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

Db 1 yplikpeapedaspeelnryaslrhynlvtrqry 36

## RESULT 5

AAB12178

ID AAB12178 standard; peptide; 36 AA.

XX AAB12178;

DT 20-JUN-2001 (first entry)

DE Human peptide YY.

Human; neuropeptide Y; luteinizing hormone; reproductive system; NPY; NPY-Y4 receptor; precocious puberty; polycystic ovary syndrome; endometriosis; benign prostatic hyperplasia; delayed puberty; amenorrhea; breast cancer; prostate cancer; peptide YY; PYY.

XX Homo sapiens.

FH Key Location/Qualifiers

FT Modified-site 36

FT /note= "C-terminal amide"

PN WO200030674-A1.

PD 02-JUN-2000.

PF 26-NOV-1999; 99WO-GB03963.

PR 26-NOV-1998; 98GB-0025969.

PR 13-MAY-1999; 99GB-0011178.

PA (FERR ) FERRING BV.

PI Broqua P, Akinsanya K, Hayward A;

DR WPI; 2000-399931/34.

Treating human reproductive disorders such as amenorrhea, delayed puberty, polycystic ovary syndrome and endometriosis, comprises administering a neuropeptide Y-Y4 receptor ligand

PS Disclosure; Page 2; 17pp; English.

Neuropeptide Y (NPY) (AAB12177) has a number of effects on the reproductive system. NPY is one of a family of neuropeptides. Other members of the family include the present sequence, peptide YY (PYY), and pancreatic polypeptide (PP, see AAB12179 and AAB12180). Selective NPY-Y4 receptor agonists have been found (see AAB12181 to AAB12183). The NPY-Y4 receptor agonists cause an increase in the circulating levels of luteinizing hormone (LH) and hence improve the fertility of animals with compromised reproductive function. The NPY-Y4 agonists may be used to treat human reproductive disorders such as delayed puberty and amenorrhea. In addition, NPY-Y4 antagonists may be used to treat human reproductive disorders such as precocious puberty, endometriosis, polycystic ovary syndrome, benign prostatic hyperplasia and hormone-dependent neoplasias e.g. breast cancer and prostate cancer. The present sequence was used in a sequence homology comparison.

SQ Sequence 36 AA;

Query Match 100.0%; Score 194; DB 21; Length 36;

Best Local Similarity 100.0%; Pred. No. 2.2e-20;

Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

Db 1 yplikpeapedaspeelnryaslrhynlvtrqry 36

## RESULT 6

AAY87961

ID AAY87961 standard; peptide; 36 AA.



XX	AA	Y87961;	
XX	AC		
XX	DT	18-SEP-2000	(first entry)
XX	DE	Human neuropeptide PPY fragment.	
XX	KW	Neuropeptide; human; treatment; reproductive disorder; neuropeptide Y;	
KW	KW	endocrine; gynecological; cytostatic; puberty; endometriosis;	
KW	KW	polycystic ovary syndrome; prostatic hyperplasia; amenorrhoea.	
XX	OS	Homo sapiens.	
XX	PN	GB2344050-A.	
XX	PD	31-MAY-2000.	
XX	PF	26-NOV-1998;	98GB-0025969.
XX	PR	26-NOV-1998;	98GB-0025969.
XX		(FERR ) FERRING BV.	

PI Akinsanya K, Hayward A, Broqua P;  
XX  
DR WPI; 2000-331548/29.

PT Compositions containing a neuropeptide Y Y4 receptor ligand selective  
PT for the hypothalamic-pituitary-gonadal axis, for treatment of  
PT reproductive disorders e.g. delayed or precocious puberty,  
PT endometriosis and benign prostatic hyperplasia -

PS Disclosure; Page 2; 12pp; English.

CC This invention describes the novel use of a composition containing a  
CC neuropeptide Y (NPY) Y4 receptor ligand for treatment of human  
CC reproductive disorders. The products described in the invention have  
CC endocrine, gynecological and cytostatic activity and can be used for the  
CC treatment of reduced reproductive function, delayed puberty, supranormal  
CC function of the reproductive organs, precocious puberty, endometriosis,  
CC polycystic ovary syndrome, benign prostatic hyperplasia, impaired  
CC reproductive function or amenorrhoea. This sequence represents the human  
CC PPY neuropeptide which is used in the method of the invention.

Sequence 36 AA:

Query Match	100.0%;	Score 194;	DB 21;	Length 36;
Best Local Similarity	100.0%;	Pred. No. 2.2e-20;		
Matches 36;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;

QY	1 YPIKPEAPGEDASPEELNRYIASLRHYLNLVTRORY 36 
Db	1 ypiKpeapgedaspeelnryiaslrhylnlvtrqry 36 

RESULT	7
AAy87550	
ID	AAy87550 standard; peptide; 36 AA.
XX	
AC	AAy87550;

DT	18-JUL-2000	(first entry)
XX		
DE	Human peptide YY (PYY).	

KW PY; peptide YY; human; electrolyte secretion; fluid secretion;  
KW nutrient uptake; lipolysis; vasoconstriction; gastrointestinal disorder;  
KW diarrhoea; Crohn's disease; irritable bowel syndrome; ileostomy;  
KW cachexia.

05 Homo sapiens.

Key	Location/Qualifiers
FT Modified-site	36
FT	/note="C-terminal amide"

PN US6046167-A.

PD 04-APR-2000.

PF 25-MAR-1998; 98US-0047986.

PR 25-MAR-1998; 98US-0047986.

PA (UYCI-) UNIV CINCINNATI.

PI Balasubramaniam A;

DR WPI; 2000-327889/28.

PT New peptide YY analogs especially useful for treating gastrointestinal

secretion, and decreased absorption, e.g. infectious and inflammatory diarrhoea

PS Disclosure; column 2; 18pp; English.

CC The invention relates to novel peptide YY (PYY) analogues

CC (AAV87551-Y87564 and AAV87568) that can be used for the treatment of  
CC gastrointestinal disorders. PLY (AAV87549, AAV87550) is a 36 residue

peptideamide that is released into the circulation after a meal and which is thought to play a role in regulating intestinal secretion and

absorption. It binds to a receptor on intestinal epithelial cells, and inhibits intestinal secretion and gut motility. It is therefore a natural

cell proliferation, lipolysis and vasoconstriction. The compounds of the invention are useful for the treatment of diseases associated with increased

the small intestine; augmenting nutrient transport; increasing cell proliferation in the gastrointestinal tract.

analogue are especially useful in the treatment of certain diseases. For example, adipose tissue; and regulating blood flow in mammals. The analogue in the gastrointestinal tract; regulating lipolysis in, for example, adipose tissue; and regulating blood flow in mammals. The analogue are especially useful in the treatment of certain diseases.

analogues are especially useful in the treatment of gastrointestinal disorders associated with excess intestinal electrolytes and water secretion, as well as decreased absorption. For animals, their use is

in treating acute viral or bacterial diarrhoea, diarrhoea due to protozoal infections (travellers' diarrhoea, inflammatory diarrhoea as well as decreased absorption). For example, they are used

(e.g., Crohn's disease, irritable bowel syndrome); short bowel syndrome or diarrhoea following ileostomy The penicidase can also be used to treat or prevent infections, travellers' diarrhoea, inflammatory diarrhoea

an emergency or life-threatening situation involving a gastrointestinal disorder, e.g. after surgery or due to cholera, and to treat intoxication

dysfunction in patients with AIDS, especially those with cachexia. As the PYY analogues are shorter than naturally occurring pvv, synthetic

analogue interact specifically with DRY receptors and not with recent CC and purification of the compounds is easier and less costly. The

for the PYV homologue neurotrophin Y (NPY), thus minimizing unwanted side reactions. The present sequence represents human PYV CC

Sequence	36	AA:
----------	----	-----

Query Match	100.0%;	Score 194;	DB 21;	Length 36;
Best Local Similarity	100.0%;	Pred. No. 2.2e-20;		
Matches 36; Conservative	0;	Mismatches 0;	Indels 0;	Gaps 0;

QY 1 YPIKPEAGEDASPEELNRYASLRHYLNLVTRQRY 36  
|||||  
1 YPIKPEAGEDASPEELNRYASLRHYLNLVTRQRY 36

RESULT	8
AAB91223	
ID	AAB91223 standard; Peptide; 36 AA.

AC AAB91223;

DT 22-JUN-2001 (first entry)



XX	Peptide YY SEQ ID NO:397.
DE	
XX	Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW	blood component; modification; succinimideyl; maleimido group; amino;
KW	hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX	
OS	Homo sapiens.
OS	Synthetic.
XX	
PN	WO200069900-A2.
PD	
XX	23-NOV-2000.
PF	
XX	17-MAY-2000; 2000WO-US13576.
PR	
XX	17-MAY-1999; 99US-0134406.
PR	
XX	10-SEP-1999; 99US-0153406.
PR	
XX	15-OCT-1999; 99US-0159783.
PA	
XX	(CONJ-) CONJUCHEM INC.
PI	
XX	Bridon DP, Ezrin AM, Malner PG, Holmes DL, Thibaudeau K;
XX	
DR	WPI; 2001-112059/12.
PT	
XX	Modifying and attaching therapeutic peptides to albumin prevents
PT	peptidase degradation, useful for increasing length of in vivo activity
PS	
XX	Disclosure; Page 327-328; 733pp; English.
CC	
CC	The present invention describes a modified therapeutic peptide (I)
CC	comprising a therapeutically active amino acid region (II) and a
CC	reactive group (III) (e.g. succinimideyl and maleimido groups) attached to
CC	a less therapeutically active amino acid region (IV), which covalently
CC	bonds with amino/hydroxyl/thiol groups on blood components to form a
CC	peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC	(I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC	factors and neurotransmitters, to protect them from peptidase activity
CC	in vivo for the treatment of various disorders. Endogenous therapeutic
CC	peptides are not suitable as drug candidates as they require frequent
CC	administration due to rapid degradation by peptidases in the body.
CC	Modifying and attaching therapeutic peptides to albumin prevents or
CC	reduces the action of peptidases to increase length of activity (half
CC	life) and specificity as bonding to large molecules decreases
CC	intracellular uptake and interference with physiological processes.
CC	AAB90829 to AAB92441 represent peptides which can be used in the
CC	exemplification of the present invention.
XX	
SQ	Sequence 36 AA;
QY	
Query Match	100.0%; Score 194; DB 22; Length 36;
Best Local Similarity	100.0%; Pred. No. 2.2e-20;
Matches 36; Conservative	0; Mismatches 0; Indels 0; Gaps 0;
Db	
1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTQRX	36
1 yplkpeapgedaspeelnryasylnlvtqrqy	36
RESULT 9	
AAU06188	
ID AAU06188 standard; peptide; 36 AA.	
AC AAU06188;	
DT 04-DEC-2001 (first entry)	
DE Human peptide tyrosine-tyrosine (PTY).	
XX Human; brain aluminium concentration; central nervous system;	

KW	CNS; peptide tyrosine-tyrosine receptor; PY receptor; PP receptor;
KW	pancreatic polypeptide receptor; Alzheimer's disease; nootropic;
KW	neuro protective.
XX	
OS	Homo sapiens.
XX	
PN	WO200158409-A2.
XX	
PD	16-AUG-2001.
XX	
PF	07-FEB-2001; 2001WO-US03952.
XX	
PR	08-FEB-2000; 2000US-0499980.
XX	
PA	(UYNC-) UNIV NORTH CAROLINA STATE.
XX	
PI	Croom WJ, Berg BM, Taylor IL;
XX	
DR	WPI; 2001-550001/61.
XX	
PT	Reducing aluminium levels in the central nervous system, for the
PT	treatment of Alzheimer's disease comprises administration of a peptide
PT	tyrosine receptor agonist or a pancreatic polypeptide receptor agonist
PT	-
XX	
PS	Disclosure; Page 7; 52pp; English.
XX	
CC	The present invention relates to a method of reducing aluminium levels
CC	in the central nervous system (CNS). The method comprises administration
CC	of a peptide tyrosine-tyrosine (PY) receptor agonist or a pancreatic
CC	polypeptide (PP) receptor agonist. The method is useful for the
CC	treatment of Alzheimer's disease and for reducing aluminium levels in
CC	the central nervous system, especially the brain, of a subject. The
CC	treatments are effective and do not impart excessive toxicological
CC	effects. The present sequence represents human PY.
XX	
SQ	Sequence 36 AA:
	Query Match 100.0%; Score 194; DB 22; Length 36;
	Best Local Similarity 100.0%; Pred. No. 2.2e-20;
	Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps
QY	1 YPIKPEAPGEDASPEELNRYASLRHYLNLYTRQRY 36
Db	1 ypikepapedaspeelnryaslrhylnlyltrqry 36
RESULT 10	
AAB08020	
ID	AAB08020 standard; Protein; 97 AA.
XX	
AC	AAB08020;
XX	
DT	14-NOV-2000 (first entry)
XX	
DE	Amino acid sequence of a human peptide YP (PY).
XX	
KW	Peptide YP; PY; pancreatic cell growth; pancreatic tissue degeneration;
KW	glucose metabolism; insulin resistance; glucose intolerance;
KW	glucose non-responsiveness; hyperglycemia; obesity; hyperlipidemia;
KW	hyperfiltration; type II diabetes mellitus.
XX	
OS	Homo sapiens.
XX	
FH	Key
FT	Peptide
FT	1.28
FT	Location/Qualifiers
FT	Protein
FT	/note= "signal peptide"
FT	29.97
FT	/note= "mature protein"
XX	
PN	WO200047219-A2.
XX	

PD 17-AUG-2000.  
XX  
PF 10-FEB-2000; 2000WO-US03391.  
XX  
PR 10-FEB-1999; 99US-0119577.  
XX  
PA (ONTO-) ONTOGENY INC.  
XX  
PI Pang K, Lu H;  
XX  
DR WPI: 2000-565257/52.  
XX N-PSDB; AAA59713.  
PT Promoting the growth of pancreatic cells and reducing degeneration of  
PT pancreatic tissue for treating a disease associated with altered  
PT glucose metabolism comprises contacting with a composition including  
PT (an agonist of) peptide YX -  
XX  
PS Disclosure; Page 82-83; 83pp; English.  
XX  
SC The present sequence represents a human peptide YX (PYX). PYX triggers  
SC gain of function in glucose non-responsive foetal and adult islets which  
SC leads to glucose responsiveness. The specification describes a method for  
SC promoting the growth of pancreatic cells and reducing degeneration of  
SC pancreatic tissue. The method comprises contacting pancreatic cells  
SC or tissue with a composition including PYX or an agonist of PYX. The  
SC method is used for treating a disease, especially in a human, associated  
SC with altered glucose metabolism, especially insulin resistance, glucose  
SC intolerance or glucose non-responsiveness, hyperglycemia, obesity,  
SC hyperlipidemia, hyperfiltration or type II diabetes mellitus.  
SQ Sequence 97 AA;  
QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
Db 29 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 64  
Query Match 100.0%; Score 194; DB 21; Length 97;  
Best Local Similarity 100.0%; Pred. No. 7.4e-20;  
Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
RESULT 11  
AAG75364  
ID AAG75364 standard; Protein; 176 AA.  
XX  
AC AAG75364;  
XX  
PF 03-SEP-2001 (first entry)  
XX  
DE Human colon cancer antigen protein SEQ ID NO:6128.  
XX  
KW Human; colon cancer; colon cancer antigen; diagnosis; detection;  
KW colorectal carcinoma; chromosome 17.  
XX  
OS Homo sapiens.  
XX  
PN WO200122920-A2.  
XX  
PD 05-APR-2001.  
XX  
PF 28-SEP-2000; 2000WO-US26524.  
XX  
PR 29-SEP-1999; 99US-0157137.  
PR 03-NOV-1999; 99US-0163280.  
XX  
PA (HUMA-) HUMAN GENOME SCI INC.  
XX  
PI Ruben SM, Barash SC, Birse CE, Rosen CA;  
XX  
DR WPI: 2001-235357/24.  
DR N-PSDB; AAH34769.

XX  
PT Nucleic acids encoding 4277 human colon cancer-associated polypeptides,  
PT useful for preventing, diagnosing and/or treating colorectal cancers -  
XX  
XX Claim 11; Page 7579-7580; 9803pp; English.  
XX  
CC AAH32943 to AAH37195 and AAG73514 to AAG77788 represent human colon  
CC cancer-associated nucleic acid molecules (N) and proteins (P), where  
CC the proteins are collectively known as colon cancer antigens. The colon  
CC cancer antigens have cytostatic activity and can be used in gene  
CC therapy and vaccine production. N and P may be used in the prevention,  
CC diagnosis and treatment of diseases associated with inappropriate P  
CC expression. For example, N and P may be used to treat disorders  
CC associated with decreased expression by rectifying mutations or deletions  
CC in a patient's genome that affect the activity of P by expressing P.  
CC Inactive proteins or to supplement the patient's own production of P.  
CC Additionally, N may be used to produce the colon cancer-associated P,  
CC by inserting the nucleic acids into a host cell and culturing the cell  
CC to express the proteins. N and P can be used in the prevention, diagnosis  
CC and treatment of colorectal carcinomas and cancers. AAH37196 to AAH37204  
CC and AAB77789 represent sequences used in the exemplification of the  
CC present invention.  
CC N.B. Pages 666 to 682 and page 7053 of the sequence listing were  
CC missing at time of publication, meaning no sequences are present for  
CC SEQ ID NO:1027 to 1052, 7921 and 7922.  
SQ Sequence 176 AA;  
QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
Db 53 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 88  
Query Match 100.0%; Score 194; DB 22; Length 176;  
Best Local Similarity 100.0%; Pred. No. 1.5e-19;  
Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
RESULT 12  
AAB91109  
ID AAB91109 standard; Peptide; 36 AA.  
XX  
AC AAB91109;  
XX  
DT 22-JUN-2001 (first entry)  
XX  
DE Parathyroid hormone (PTH) related peptide SEQ ID NO:283.  
XX  
KW Protection; endogenous therapeutic peptide; peptidase; conjugation;  
KW blood component; modification; succinimide; maleimide group; amino;  
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.  
XX  
OS Homo sapiens.  
XX  
OS Synthetic.  
XX  
PN WO200069900-A2.  
XX  
PD 23-NOV-2000.  
XX  
PF 17-MAY-2000; 2000WO-US13576.  
XX  
PR 17-MAY-1999; 99US-0134406.  
PR 10-SEP-1999; 99US-0153406.  
PR 15-OCT-1999; 99US-0159783.  
XX  
PA (CONJ-) CONJUCHEM INC.  
XX  
PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudau K;  
XX  
DR WPI: 2001-112059/12.  
PT Modifying and attaching therapeutic peptides to albumin prevents  
PT peptidase degradation, useful for increasing length of in vivo activity

PT -  
XX  
PS Disclosure; Page 285; 733pp; English.  
XX  
CC The present invention describes a modified therapeutic peptide (I)  
CC comprising a therapeutically active amino acid region (III) and a  
CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to  
CC a less therapeutically active amino acid region (IV), which covalently  
CC bonds with amino/hydroxyl/thiol groups on blood components to form a  
CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.  
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth  
CC factors and neurotransmitters, to protect them from peptidase activity  
CC in vivo for the treatment of various disorders. Endogenous therapeutic  
CC peptides are not suitable as drug candidates as they require frequent  
CC administration due to rapid degradation by peptidases in the body.  
CC Modifying and attaching therapeutic peptides to albumin prevents or  
CC reduces the action of peptidases to increase length of activity (half  
CC life) and specificity as bonding to large molecules decreases  
CC intracellular uptake and interference with physiological processes.  
CC AAB90829 to AAB92441 represent peptides which can be used in the  
CC exemplification of the present invention.

XX  
SQ Sequence 36 AA;

Query Match 96.9%; Score 188; DB 22; Length 36;  
Best Local Similarity 97.2%; Pred. No. 1.6e-19;  
Matches 35; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

OY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTQRQRY 36  
|||||  
Db 1 ypi kpeapgedaspeelnr yasl rhylnlvtqrpy 36

RESULT 13

AAB91226  
ID AAB91226 standard; peptide; 36 AA.

XX  
AC AAB91226;

XX  
DT 22-JUN-2001 (first entry)

XX  
DE Peptide YX SEQ ID NO:400.

XX  
KW Protection; endogenous therapeutic peptide; peptidase; conjugation;  
KW blood component; modification; succinimidyl; maleimido group; amino;  
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.

XX  
OS Homo sapiens.  
OS Synthetic.

XX  
PN WO200069900-A2.

XX  
PD 23-NOV-2000.

XX  
PF 17-MAY-2000; 2000WO-US13576.

XX  
PR 17-MAY-1999; 99US-0134406.

XX  
PR 10-SEP-1999; 99US-0153406.

XX  
PR 15-OCT-1999; 99US-0159783.

XX  
PA (CONJ-) CONJUCHEM INC.

XX  
PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudau K;

XX  
DR WPI; 2001-112059/12.

XX  
PT Modifying and attaching therapeutic peptides to albumin prevents  
PT peptidase degradation, useful for increasing length of in vivo activity

XX  
PS Disclosure; Page 329; 733pp; English.

CC The present invention describes a modified therapeutic peptide (I)  
CC comprising a therapeutically active amino acid region (III) and a  
CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to  
CC a less therapeutically active amino acid region (IV), which covalently  
CC bonds with amino/hydroxyl/thiol groups on blood components to form a  
CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.  
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth  
CC factors and neurotransmitters, to protect them from peptidase activity  
CC in vivo for the treatment of various disorders. Endogenous therapeutic  
CC peptides are not suitable as drug candidates as they require frequent  
CC administration due to rapid degradation by peptidases in the body.  
CC Modifying and attaching therapeutic peptides to albumin prevents or  
CC reduces the action of peptidases to increase length of activity (half  
CC life) and specificity as bonding to large molecules decreases  
CC intracellular uptake and interference with physiological processes.  
CC AAB90829 to AAB92441 represent peptides which can be used in the  
CC exemplification of the present invention.

XX  
SQ Sequence 36 AA;

Query Match 95.4%; Score 185; DB 22; Length 36;  
Best Local Similarity 94.4%; Pred. No. 4.2e-19;  
Matches 34; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTQRQRY 36  
|||||  
Db 1 ypi kpeapgedaspeelnr yasl rhylnlvtqrpy 36

RESULT 14

AAR62049  
ID AAR62049 standard; peptide; 36 AA.

XX  
AC AAR62049;

XX  
DT 14-JUN-1995 (first entry)

XX  
DE Porcine peptide YX (PYV).

XX  
KW Peptide YX; PYV; gastro-enterological disorders; intestinal water;  
KW electrolyte secretion; cell proliferation; nutrient transport;  
KW lipolysis; blood flow regulation.

XX  
OS Sus scrofa.

XX  
PN WO9422467-A.

XX  
PD 13-OCT-1994.

XX  
PF 29-MAR-1994; 94WO-US03380.

XX  
PR 29-MAR-1993; 93US-0038534.

XX  
PR 19-AUG-1993; 93US-0109326.

XX  
PA (UYCI-) UNIV CINCINNATI.

XX  
PI Balasubramaniam A;

XX  
DR WPI; 1994-332815/41.

XX  
PT New peptide derivs. - useful as therapeutic agents, for treating  
PT gastro-enterological disorders

XX  
PS Disclosure; Page 3; 45pp; English.

XX  
CC AAR62049 describes the amino acid sequence of porcine peptide YX  
CC (PYV), which was isolated from the endocrine cells of the porcine  
CC gastrointestinal tract and pancreas. Using this sequence as a base  
CC the PYV analogues described in AAR62051-R62082 were produced. The  
CC new peptides were found to have a variety of properties, that made  
CC them useful as therapeutic agents in the treatment of  
CC gastro-enterological disorders. As part of a therapeutic

CC composition they could be used for decreasing excess intestinal  
CC water and electrolyte secretion, for regulating cell proliferation  
CC and augmenting nutrient transport, and for regulating lipolysis  
CC and blood flow.  
XX  
SQ Sequence 36 AA;

Query Match 94.8%; Score 184; DB 15; Length 36;  
Best Local Similarity 94.4%; Pred. No. 5.8e-19;  
Matches 34; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
|| |||||  
Db 1 ypakpeapgedaspeelsryaslrhylnlvtrqry 36

RESULT 15  
AAR97740  
ID AAR97740 standard; peptide: 36 AA.

AAR97740;

09-JAN-1997 (first entry)

Porcine peptide YV.

Peptide YV; PY; porcine; human; intestine; endocrine cell; gut motility;  
gastrointestinal tract; pancreas; inhibitor; intestinal secretion; pig;  
pancreatic tumour; blood flow; serous cyst adenoma; microcystic tumour;  
solid-cyst tumour; malignant tumour; therapy.

Sus scrofa.

W09614854-A1.

23-MAY-1996.

03-NOV-1995; 95WO-US14303.

14-NOV-1994; 94US-0338395.

(REGC ) UNIV CALIFORNIA.

Mcfadden DW;

WPI; 1996-259558/26.

Use of peptide YV and its agonists to treat pancreatic tumours -  
either in vitro or in vivo to reduce tumour cell proliferation

Disclosure; Page 3; 22pp; English.

AAR97740 and AAR97741 represent porcine and human peptide YV (PYV)  
respectively. This sequence is isolated from intestine, and is  
localised in the endocrine cells of the gastrointestinal tract and the  
pancreas. PYV is thought to inhibit gut motility and blood flow, to  
mediate intestinal secretion, and stimulate net absorption. These  
sequences, and agonists against them (see AAR97742-R97744), can be used  
in the method of the invention. The method of the invention is for  
inhibiting pancreatic tumours by contacting them with an effective amount  
of one of these sequences. The method is effective in treating both  
benign and malignant pancreatic tumours. The types of benign tumour  
pancreatic tumours that can be treated, include, serous cyst adenomas,  
microcystic tumours, and solid-cyst tumours. The malignant tumours  
capable of being treated by the method of the invention include,  
carcinomas arising from the ducts, acini, or islets of the pancreas.

Sequence 36 AA;

Matches 34; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
OY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
|| |||||  
Db 1 ypakpeapgedaspeelsryaslrhylnlvtrqry 36

Search completed: July 30, 2002, 08:00:32  
Job time: 60 sec

Query Match 94.8%; Score 184; DB 17; Length 36;  
Best Local Similarity 94.4%; Pred. No. 5.8e-19;



Tue Jul 30 10:09:16 2002

us-10-016-969-2.rag

Page 9



GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: July 30, 2002, 07:59:32 ; Search time 20.59 seconds  
(without alignments)  
42.706 Million cell updates/sec

Title: US-10-016-969-2  
Perfect score: 194  
Sequence: 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 231628 seqs, 24425594 residues  
Total number of hits satisfying chosen parameters: 231628

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued\_Patents\_AA:\*  
1: /cgn2\_6/ptodata/2/iaa/5A\_COMB.pep:\*  
2: /cgn2\_6/ptodata/2/iaa/5B\_COMB.pep:\*  
3: /cgn2\_6/ptodata/2/iaa/6A\_COMB.pep:\*  
4: /cgn2\_6/ptodata/2/iaa/6B\_COMB.pep:\*  
5: /cgn2\_6/ptodata/2/iaa/PCTUS\_COMB.pep:\*  
6: /cgn2\_6/ptodata/2/iaa/backfiles1.pep:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	194	100.0	36	1	US-08-338-395-2 Sequence 2, Appli
2	194	100.0	36	1	US-08-329-151-2 Sequence 2, Appli
3	194	100.0	36	3	US-09-054-393-2 Sequence 2, Appli
4	194	100.0	36	3	US-09-047-986B-2 Sequence 2, Appli
5	194	100.0	36	4	US-09-229-900-2 Sequence 2, Appli
6	194	100.0	36	5	PCT-US95-14303-2 Sequence 2, Appli
7	184	94.8	36	1	US-07-882-923-3 Sequence 3, Appli
8	184	94.8	36	1	US-08-338-395-1 Sequence 1, Appli
9	184	94.8	36	1	US-08-329-151-1 Sequence 1, Appli
10	184	94.8	36	3	US-09-047-986B-1 Sequence 1, Appli
11	184	94.8	36	5	PCT-US95-14303-1 Sequence 1, Appli
12	175	90.2	36	1	US-08-329-151-9 Sequence 9, Appli
13	158.5	81.7	35	1	US-07-776-272-30 Sequence 30, Appli
14	146	75.3	36	1	US-07-882-923-1 Sequence 1, Appli
15	146	75.3	36	1	US-08-264-030-1 Sequence 1, Appli
16	146	75.3	36	1	US-08-338-395-4 Sequence 4, Appli
17	146	75.3	36	3	US-08-907-403A-2 Sequence 2, Appli
18	146	75.3	36	5	PCT-US95-14303-4 Sequence 4, Appli
19	144	74.2	36	1	US-07-882-923-2 Sequence 2, Appli
20	144	74.2	36	1	US-08-338-395-3 Sequence 3, Appli
21	144	74.2	36	1	US-08-329-151-24 Sequence 24, Appli
22	144	74.2	36	3	US-08-907-403A-1 Sequence 1, Appli
23	144	74.2	36	5	PCT-US95-14303-3 Sequence 3, Appli
24	144	74.2	97	3	US-09-054-393-1 Sequence 1, Appli
25	144	74.2	97	3	US-08-994-946A-6 Sequence 6, Appli
26	144	74.2	97	4	US-09-229-900-1 Sequence 1, Appli
27	144	74.2	97	4	US-09-291-994-6 Sequence 6, Appli

28	129	66.5	24	3	US-09-054-393-7	Sequence 7, Appli
29	129	66.5	24	4	US-09-229-900-7	Sequence 7, Appli
30	115.5	59.5	31	1	US-07-776-272-23	Sequence 23, Appli
31	106	54.6	36	2	US-08-806-203-1	Sequence 1, Appli
32	103	53.1	36	1	US-07-776-272-18	Sequence 18, Appli
33	97	50.0	28	1	US-08-264-030-3	Sequence 3, Appli
34	96	49.5	28	1	US-08-264-030-5	Sequence 5, Appli
35	95	49.0	28	1	US-08-264-030-10	Sequence 10, Appli
36	88	45.4	20	1	US-07-882-923-11	Sequence 11, Appli
37	86.5	44.6	25	1	US-08-264-030-7	Sequence 7, Appli
38	85	43.8	19	1	US-07-882-923-4	Sequence 4, Appli
39	84.5	43.6	25	1	US-08-264-030-11	Sequence 11, Appli
40	84	43.3	16	3	US-09-054-393-8	Sequence 8, Appli
41	84	43.3	16	4	US-09-229-900-8	Sequence 8, Appli
42	83.5	43.0	25	1	US-08-264-030-8	Sequence 8, Appli
43	82	42.3	19	1	US-07-882-923-5	Sequence 5, Appli
44	82	42.3	24	3	US-09-054-393-5	Sequence 5, Appli
45	82	42.3	24	4	US-09-229-900-5	Sequence 5, Appli

## ALIGNMENTS

RESULT 1  
US-08-338-395-2  
Sequence 2, Application US/08338395  
Patent No. 5574010  
GENERAL INFORMATION:  
APPLICANT: McFadden, David W  
TITLE OF INVENTION: TREATMENT OF PANCREATIC TUMORS WITH  
TITLE OF INVENTION: PEPTIDE YY AND ANALOGS THEREOF  
NUMBER OF SEQUENCES: 5  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: POMS, SMITH, LANDE & ROSE  
STREET: 2029 Century Park East 38th Floor  
CITY: Los Angeles  
STATE: CA  
COUNTRY: USA  
ZIP: 90067  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/338,395  
FILING DATE:  
CLASSIFICATION: 514  
ATTORNEY/AGENT INFORMATION:  
NAME: Oldenkamp, David J  
REGISTRATION NUMBER: 29421  
REFERENCE/DOCKET NUMBER: 107012  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 310-788-5046  
TELEFAX: 310-277-1297  
INFORMATION FOR SEQ ID NO: 2:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 36 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
ORIGINAL SOURCE:  
ORGANISM: HUMAN PEPTIDE YY  
US-08-338-395-2

Query Match 100.0%; Score 194; DB 1; Length 36;  
Best Local Similarity 100.0%; Pred. No. 7.4e-22;  
Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
DB 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

RESULT 2  
US-08-329-151-2  
; Sequence 2, Application US/08329151  
; Patent No. 5604203  
; GENERAL INFORMATION:  
; APPLICANT: Balasubramanian, A.  
; TITLE OF INVENTION: ANALOGS OF PEPTIDE YY AND USES  
; TITLE OF INVENTION: THEREOF  
; NUMBER OF SEQUENCES: 30  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Fish & Richardson  
; STREET: 225 Franklin Street  
; CITY: Boston  
; STATE: Massachusetts  
; COUNTRY: U.S.A.  
; ZIP: 02110-2804  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: 3.5" Diskette, 1.44 MB  
; COMPUTER: IBM PS/2 Model 50Z or 55SX  
; OPERATING SYSTEM: MS-DOS (Version 5.0)  
; SOFTWARE: WordPerfect (Version 5.1)  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/329,151  
; FILING DATE:  
; CLASSIFICATION: 514  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 08/038,534  
; FILING DATE: 3/29/93  
; APPLICATION NUMBER: 08/109,326  
; FILING DATE: 08/19/93  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Paul T. Clark  
; REGISTRATION NUMBER: 30,162  
; REFERENCE/DOCKET NUMBER: 00537/105001  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (617) 542-5070  
; TELEFAX: (617) 542-8906  
; TELEX: 200154  
; INFORMATION FOR SEQ ID NO: 2:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 36  
; TYPE: amino acid  
; STRANDEDNESS: N/A  
; TOPOLOGY: linear  
; US-08-329-151-2

Query Match 100.0%; Score 194; DB 1; Length 36;  
Best Local Similarity 100.0%; Pred. No. 7.4e-22;  
Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
Db 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

RESULT 3  
US-09-054-393-2  
; Sequence 2, Application US/09054393  
; Patent No. 6017879  
; GENERAL INFORMATION:  
; APPLICANT: Mutter, Manfred  
; APPLICANT: Lacroix, Jean S.  
; APPLICANT: Grouzmann, Eric  
; TITLE OF INVENTION: Template Associated NPY Y2-Receptor  
; TITLE OF INVENTION: Agonists  
; NUMBER OF SEQUENCES: 8  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Vinson & Elkins LLP  
; STREET: 1455 Pennsylvania Avenue, N.W.  
; CITY: Washington

STATE: D.C.  
COUNTRY: U.S.  
ZIP: 20004-1008  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/054,393  
FILING DATE:  
CLASSIFICATION:  
ATTORNEY/AGENT INFORMATION:  
NAME: Sanzo, Michael A.  
REGISTRATION NUMBER: 36,912  
REFERENCE/DOCKET NUMBER: BMR350/48000  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (202)639-6604  
TELEFAX: (202)639-6585  
INFORMATION FOR SEQ ID NO: 2:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 36 amino acids  
TYPE: amino acid  
STRANDEDNESS: not relevant  
TOPOLOGY: not relevant  
MOLECULE TYPE: peptide  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
US-09-054-393-2

Query Match 100.0%; Score 194; DB 3; Length 36;  
Best Local Similarity 100.0%; Pred. No. 7.4e-22;  
Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
Db 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

RESULT 4  
US-09-047-986B-2  
; Sequence 2, Application US/09047986B  
; Patent No. 6046167  
; GENERAL INFORMATION:  
; APPLICANT: Balasubramanian, Ambikaipakan  
; TITLE OF INVENTION: PEPTIDE YY ANALOGS  
; NUMBER OF SEQUENCES: 20  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Frost & Jacobs, L.L.P.  
; STREET: 2500 PNC Center, 201 East Fifth St.  
; CITY: Cincinnati  
; STATE: OH  
; COUNTRY: USA  
; ZIP: 45202-4182  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB storage  
; COMPUTER: IBM compatible  
; OPERATING SYSTEM: MS-DOS  
; SOFTWARE: Word 97  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/09/047,986B  
; FILING DATE: 25 March 1998  
; CLASSIFICATION: 514  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Kristyne A. Bullock  
; REGISTRATION NUMBER: 42,371  
; REFERENCE/DOCKET NUMBER: 9183030/508  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (513) 651-6731  
; TELEFAX: (513) 651-6981  
; TELEX: 21-4396 F&J Cln  
; INFORMATION FOR SEQ ID NO: 2:





;; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/07/882,923  
; FILING DATE: 19920512  
; CLASSIFICATION: 514  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/503,198  
; FILING DATE: 30-MAR-1990  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/219,596  
; FILING DATE: 15-JUL-1988  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Schumann, James J.  
; REGISTRATION NUMBER: 20,856  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 619-552-1311  
; TELEFAX: 619-552-0095  
; INFORMATION FOR SEQ ID NO: 3:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 36 amino acids  
; TYPE: AMINO ACID  
; TOPOLOGY: unknown  
; MOLECULE TYPE: peptide  
; US-07-882-923-3

Query Match 94.8%; Score 184; DB 1; Length 36;  
Best Local Similarity 94.4%; Pred. No. 2.2e-20;  
Matches 34; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
|| |||||  
Db 1 YPAKPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 36

RESULT 8  
US-08-338-395-1  
; Sequence 1, Application US/08338395  
; Patent No. 5574010  
; GENERAL INFORMATION:  
; APPLICANT: McFadden, David W  
; TITLE OF INVENTION: TREATMENT OF PANCREATIC TUMORS WITH  
; TITLE OF INVENTION: PEPTIDE YY AND ANALOGS THEREOF  
; NUMBER OF SEQUENCES: 5  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: POMS, SMITH, LANDE & ROSE  
; STREET: 2029 Century Park East 38th floor  
; CITY: Los Angeles  
; STATE: CA  
; COUNTRY: USA  
; ZIP: 90067  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/338,395  
; FILING DATE:  
; CLASSIFICATION: 514  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Oldenkamp, David J  
; REGISTRATION NUMBER: 29421  
; REFERENCE/DOCKET NUMBER: 107012  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 310-788-5046  
; TELEFAX: 310-277-1297  
; INFORMATION FOR SEQ ID NO: 1:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 36 amino acids  
; TYPE: amino acid  
; TOPOLOGY: linear  
; MOLECULE TYPE: peptide

;; ORIGINAL SOURCE:  
; ORGANISM: porcine peptide YY  
; US-08-338-395-1

Query Match 94.8%; Score 184; DB 1; Length 36;  
Best Local Similarity 94.4%; Pred. No. 2.2e-20;  
Matches 34; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
|| |||||  
Db 1 YPAKPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 36

RESULT 9  
US-08-329-151-1  
; Sequence 1, Application US/08329151  
; Patent No. 5604203  
; GENERAL INFORMATION:  
; APPLICANT: Balasubramaniam, A.  
; TITLE OF INVENTION: ANALOGS OF PEPTIDE YY AND USES  
; TITLE OF INVENTION: THEREOF  
; NUMBER OF SEQUENCES: 30  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Fish & Richardson  
; STREET: 225 Franklin Street  
; CITY: Boston  
; STATE: Massachusetts  
; COUNTRY: U.S.A.  
; ZIP: 02110-2804

COMPUTER READABLE FORM:  
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb  
COMPUTER: IBM PS/2 Model 50Z or 55SX  
OPERATING SYSTEM: MS-DOS (Version 5.0)  
SOFTWARE: WordPerfect (Version 5.1)  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/329,151  
FILING DATE:

CLASSIFICATION: 514  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 08/038,534  
FILING DATE: 3/29/93  
APPLICATION NUMBER: 08/109,326  
FILING DATE: 08/19/93  
ATTORNEY/AGENT INFORMATION:  
NAME: Paul T. Clark  
REGISTRATION NUMBER: 30,162  
REFERENCE/DOCKET NUMBER: 00537/105001  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (617) 542-5070  
TELEFAX: (617) 542-8906  
TELEX: 200154  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 36  
TYPE: amino acid  
STRANDEDNESS: N/A  
TOPOLOGY: linear  
US-08-329-151-1

Query Match 94.8%; Score 184; DB 1; Length 36;  
Best Local Similarity 94.4%; Pred. No. 2.2e-20;  
Matches 34; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36  
|| |||||  
Db 1 YPAKPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 36

RESULT 10  
US-09-047-986B-1  
; Sequence 1, Application US/09047986B

Patent No. 6046167  
GENERAL INFORMATION:  
APPLICANT: Balasubramanian, Ambikaipakan  
TITLE OF INVENTION: PEPTIDE YX ANALOGS  
NUMBER OF SEQUENCES: 20  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Frost & Jacobs, L.L.P.  
STREET: 2500 PNC Center, 201 East Fifth St.  
CITY: Cincinnati  
STATE: OH  
COUNTRY: USA  
ZIP: 45202-4182  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB storage  
COMPUTER: IBM compatible  
OPERATING SYSTEM: MS-DOS  
SOFTWARE: Word 97  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/047, 986B  
FILING DATE: 25 March 1998  
CLASSIFICATION: 514  
ATTORNEY/AGENT INFORMATION:  
NAME: Kristyne A. Bullock  
REGISTRATION NUMBER: 42,371  
REFERENCE/DOCKET NUMBER: 9183030/508  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (513) 651-6731  
TELEFAX: (513) 651-6981  
TELEX: 21-4396 FBJ Cin  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 36 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
US-09-047-986B-1

Query Match 94.8%; Score 184; DB 3; Length 36;  
Best Local Similarity 94.4%; Pred. No. 2.2e-20;  
Matches 34; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTQRQY 36  
|| |||||  
Db 1 YPAKPEAPGEDASPEELSRYYASLRHYLNLVTQRQY 36

RESULT 11  
Sequence 1, Application PC/RUS9514303  
GENERAL INFORMATION:  
APPLICANT: McFadden, David W  
TITLE OF INVENTION: TREATMENT OF PANCREATIC TUMORS  
TITLE OF INVENTION: WITH PEPTIDE YX AND ANALOGS THEREOF  
NUMBER OF SEQUENCES: 5  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: POMS, SMITH, LANDE & ROSE  
STREET: 2029 Century Park East 38th Floor  
CITY: Los Angeles  
STATE: CA  
COUNTRY: USA  
ZIP: 90067  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: PCT/US95/14303  
FILING DATE: 03 November 1995  
CLASSIFICATION:  
ATTORNEY/AGENT INFORMATION:  
NAME: Oldenkamp, David J

REGISTRATION NUMBER: 29421  
REFERENCE/DOCKET NUMBER: 107012F  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 310-788-5046  
TELEFAX: 310-277-1297  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 36 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
ORIGINAL SOURCE:  
ORGANISM: porcine peptide YX  
PCT-US95-14303-1

Query Match 94.8%; Score 184; DB 5; Length 36;  
Best Local Similarity 94.4%; Pred. No. 2.2e-20;  
Matches 34; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 YPIKPEAPGEDASPEELNRYASLRHYLNLVTQRQY 36  
|| |||||  
Db 1 YPAKPEAPGEDASPEELSRYYASLRHYLNLVTQRQY 36

RESULT 12  
US-08-329-151-9  
Sequence 9, Application US/08329151  
Patent No. 5604203  
GENERAL INFORMATION:  
APPLICANT: Balasubramanian, A.  
TITLE OF INVENTION: ANALOGS OF PEPTIDE YX AND USES  
TITLE OF INVENTION: THEREOF  
NUMBER OF SEQUENCES: 30  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Fish & Richardson  
STREET: 225 Franklin Street  
CITY: Boston  
STATE: Massachusetts  
COUNTRY: U.S.A.  
ZIP: 02110-2804  
COMPUTER READABLE FORM:  
MEDIUM TYPE: 3.5" Diskette, 1.44 MB  
COMPUTER: IBM PS/2 Model 502 or 555X  
OPERATING SYSTEM: MS-DOS (Version 5.0)  
SOFTWARE: WordPerfect (Version 5.1)  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/329, 151  
FILING DATE:  
CLASSIFICATION: 514  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 08/038, 534  
FILING DATE: 3/29/93  
APPLICATION NUMBER: 08/109, 326  
FILING DATE: 08/19/93  
ATTORNEY/AGENT INFORMATION:  
NAME: Paul T. Clark  
REGISTRATION NUMBER: 30,162  
REFERENCE/DOCKET NUMBER: 00537/105001  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (617) 542-5070  
TELEFAX: (617) 542-8906  
TELEX: 200154  
INFORMATION FOR SEQ ID NO: 9:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 36  
TYPE: amino acid  
STRANDEDNESS: N/A  
TOPOLOGY: linear  
FEATURE:  
OTHER INFORMATION: Xaa in position 26 is an abbreviation of  
OTHER INFORMATION: im-Dnp-His. The sequence has an acetylated N-terminus (1.  
OTHER INFORMATION: than an amino N-terminus (i.e., H2N-). The sequence has a





CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/264,030  
 FILING DATE:  
 CLASSIFICATION: 530  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Schumann, James J  
 REGISTRATION NUMBER: 20,856  
 REFERENCE/DOCKET NUMBER: 55649  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (619) 552-1311  
 TELEFAX: (619) 552-0095  
 INFORMATION FOR SEQ ID NO: 1:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 36 amino acids  
 TYPE: amino acid  
 STRANDEDNESS: single  
 TOPOLOGY: linear  
 MOLECULE TYPE: peptide  
 HYPOTHETICAL: NO  
 ANTI-SENSE: NO  
 8-08-264-030-1

Query Match 75.3%; Score 146; DB 1; Length 36;  
 Best Local Similarity 69.4%; Pred. No. 8.3e-15;  
 Matches 25; Conservative 6; Mismatches 5; Indels 0; Gaps 0;  
 QY 1 YPIKPEAGGEDASPEELNRYYSLSRHYLNLVTRQRY 36  
 |||||  
 Db 1 YPSKPDNPGEDAPAEIDLARYYSALRHYINLITRQRY 36

Search completed: July 30, 2002, 08:01:31  
 Job time: 119 sec



GenCore version 4.5  
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: July 30, 2002, 08:01:31 ; Search time 20.59 Seconds  
(without alignments)  
40.334 Million cell updates/sec

Title: US-10-016-969-3  
Perfect score: 180  
Sequence: 1 IKPEAPGEDASPEELNRYASLRHLYLNTVTRQRY 34

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5 ,

Searched: 231628 seqs, 24425594 residues  
Total number of hits satisfying chosen parameters: 231628

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued\_Patents\_AA:\*  
1: /cgn2\_6/ptodata/2/iaa/5A\_COMB.pep:\*  
2: /cgn2\_6/ptodata/2/iaa/5B\_COMB.pep:\*  
3: /cgn2\_6/ptodata/2/iaa/6A\_COMB.pep:\*  
4: /cgn2\_6/ptodata/2/iaa/6B\_COMB.pep:\*  
5: /cgn2\_6/ptodata/2/iaa/PCTUS\_COMB.pep:\*  
6: /cgn2\_6/ptodata/2/iaa/backfiles1.pep:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	180	100.0	36	1	US-08-338-395-2 Sequence 2, Appli
2	180	100.0	36	1	US-08-329-151-2 Sequence 2, Appli
3	180	100.0	36	3	US-09-054-393-2 Sequence 2, Appli
4	180	100.0	36	3	US-09-047-986B-2 Sequence 2, Appli
5	180	100.0	36	4	US-09-229-900-2 Sequence 2, Appli
6	180	100.0	36	5	PCT-US95-14303-2 Sequence 2, Appli
7	171	95.0	36	1	US-07-882-923-3 Sequence 3, Appli
8	171	95.0	36	1	US-08-338-395-1 Sequence 1, Appli
9	171	95.0	36	1	US-08-329-151-1 Sequence 1, Appli
10	171	95.0	36	3	US-09-047-986B-1 Sequence 1, Appli
11	171	95.0	36	5	PCT-US95-14303-1 Sequence 1, Appli
12	162	90.0	36	1	US-08-329-151-9 Sequence 9, Appli
13	145.5	80.8	35	1	US-07-776-272-30 Sequence 30, Appli
14	134	74.4	36	1	US-07-882-923-1 Sequence 1, Appli
15	134	74.4	36	1	US-08-264-030-1 Sequence 1, Appli
16	134	74.4	36	1	US-08-338-395-4 Sequence 4, Appli
17	134	74.4	36	3	US-08-907-403A-2 Sequence 2, Appli
18	134	74.4	36	5	PCT-US95-14303-4 Sequence 4, Appli
19	132	73.3	36	1	US-07-882-923-2 Sequence 2, Appli
20	132	73.3	36	1	US-08-338-395-3 Sequence 3, Appli
21	132	73.3	36	1	US-08-329-151-24 Sequence 24, Appli
22	132	73.3	36	3	US-08-907-403A-1 Sequence 1, Appli
23	132	73.3	36	5	PCT-US95-14303-3 Sequence 3, Appli
24	132	73.3	97	3	US-09-054-393-1 Sequence 1, Appli
25	132	73.3	97	3	US-08-994-946A-6 Sequence 6, Appli
26	132	73.3	97	4	US-09-229-900-1 Sequence 1, Appli
27	132	73.3	97	4	US-09-291-994-6 Sequence 6, Appli

28	115	63.9	24	3	US-09-054-393-7	Sequence 7, Appli
29	115	63.9	24	4	US-09-229-900-7	Sequence 7, Appli
30	103.5	57.5	31	1	US-07-776-272-23	Sequence 23, Appli
31	99	55.0	36	2	US-08-806-203-1	Sequence 1, Appli
32	98	54.4	36	1	US-07-776-272-18	Sequence 18, Appli
33	88	48.9	20	1	US-07-882-923-11	Sequence 11, Appli
34	85	47.2	19	1	US-07-882-923-4	Sequence 4, Appli
35	85	47.2	28	1	US-08-264-030-3	Sequence 3, Appli
36	84	46.7	16	3	US-09-054-393-8	Sequence 8, Appli
37	84	46.7	16	4	US-09-229-900-8	Sequence 8, Appli
38	84	46.7	28	1	US-08-264-030-5	Sequence 5, Appli
39	83	46.1	28	1	US-08-264-030-10	Sequence 10, Appli
40	82	45.6	19	1	US-07-882-923-5	Sequence 5, Appli
41	79	43.9	19	1	US-07-882-923-9	Sequence 9, Appli
42	79	43.9	20	1	US-07-882-923-8	Sequence 8, Appli
43	79	43.9	20	1	US-07-882-923-10	Sequence 10, Appli
44	78	43.3	20	1	US-07-882-923-12	Sequence 12, Appli
45	77	42.8	15	1	US-08-329-151-10	Sequence 10, Appli

## ALIGNMENTS

RESULT 1  
US-08-338-395-2  
; Sequence 2, Application US/08338395  
; Patent No. 5574010  
; GENERAL INFORMATION:  
; APPLICANT: McFadden, David W  
; TITLE OF INVENTION: TREATMENT OF PANCREATIC TUMORS WITH  
; TITLE OF INVENTION: PEPTIDE YY AND ANALOGS THEREOF  
; NUMBER OF SEQUENCES: 5  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: POMS, SMITH, LANDE & ROSE  
; STREET: 2029 Century Park East 38th Floor  
; CITY: Los Angeles  
; STATE: CA  
; COUNTRY: USA  
; ZIP: 90067  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patentin Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/338, 395  
; FILING DATE:  
; CLASSIFICATION: 514  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Oldenkamp, David J  
; REGISTRATION NUMBER: 29421  
; REFERENCE/DOCKET NUMBER: 107012  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 310-788-5046  
; TELEFAX: 310-277-1297  
; INFORMATION FOR SEQ ID NO: 2:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 36 amino acids  
; TYPE: amino acid  
; TOPOLOGY: linear  
; MOLECULE TYPE: peptide  
; ORIGINAL SOURCE:  
; ORGANISM: HUMAN PEPTIDE YY  
; US-08-338-395-2

Query Match 100.0%; Score 180; DB 1; Length 36;  
Best Local Similarity 100.0%; Pred. No. 1.5e-20;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 IKPEAPGEDASPEELNRYASLRHLYLNTVTRQRY 34  
Db 3 IKPEAPGEDASPEELNRYASLRHLYLNTVTRQRY 36

✓  
RESULT 2  
US-08-329-151-2  
; Sequence 2, Application US/08329151  
; Patent No. 5604203  
; GENERAL INFORMATION:  
; APPLICANT: Balasubramanian, A.  
; TITLE OF INVENTION: ANALOGS OF PEPTIDE YY AND USES  
; TITLE OF INVENTION: THEREOF  
; NUMBER OF SEQUENCES: 30  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Fish & Richardson  
; STREET: 225 Franklin Street  
; CITY: Boston  
; STATE: Massachusetts  
; COUNTRY: U.S.A.  
; ZIP: 02110-2804  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: 3.5" Diskette, 1.44 MB  
; COMPUTER: IBM PS/2 Model 502 or 55SX  
; OPERATING SYSTEM: MS-DOS (Version 5.0)  
; SOFTWARE: WordPerfect (Version 5.1)  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/329,151  
; FILING DATE:  
; CLASSIFICATION: 514  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 08/038,534  
; FILING DATE: 3/29/93  
; APPLICATION NUMBER: 08/109,326  
; FILING DATE: 08/19/93  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Paul T. Clark  
; REGISTRATION NUMBER: 30,162  
; REFERENCE/DOCKET NUMBER: 00537/105001  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (617) 542-5070  
; TELEFAX: (617) 542-8906  
; TELEX: 200154  
; INFORMATION FOR SEQ ID NO: 2:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 36  
; TYPE: amino acid  
; STRANDEDNESS: N/A  
; TOPOLOGY: linear  
; US-08-329-151-2

Query Match 100.0%; Score 180; DB 1; Length 36;  
Best Local Similarity 100.0%; Pred. No. 1.5e-20;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 3 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

RESULT 3  
US-09-054-393-2  
; Sequence 2, Application US/09054393  
; Patent No. 6017879  
; GENERAL INFORMATION:  
; APPLICANT: Mutter, Manfred  
; APPLICANT: Lacroix, Jean S.  
; APPLICANT: Grouzmann, Eric  
; TITLE OF INVENTION: Template Associated NPY Y2-Receptor  
; NUMBER OF SEQUENCES: 8  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Vinson & Elkins LLP  
; STREET: 1455 Pennsylvania Avenue, N.W.  
; CITY: Washington

STATE: D.C.  
COUNTRY: U.S.  
ZIP: 20004-1008  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/054,393  
FILING DATE:  
CLASSIFICATION:  
ATTORNEY/AGENT INFORMATION:  
NAME: Sanzo, Michael A.  
REGISTRATION NUMBER: 36,912  
REFERENCE/DOCKET NUMBER: BMR350/48000  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (202)639-6585  
TELEFAX: (202)639-6604  
INFORMATION FOR SEQ ID NO: 2:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 36 amino acids  
TYPE: amino acid  
STRANDEDNESS: not relevant  
TOPOLOGY: not relevant  
MOLECULE TYPE: peptide  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
US-09-054-393-2

Query Match 100.0%; Score 180; DB 3; Length 36;  
Best Local Similarity 100.0%; Pred. No. 1.5e-20;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 3 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

RESULT 4  
US-09-047-986B-2  
; Sequence 2, Application US/09047986B  
; Patent No. 6046167  
; GENERAL INFORMATION:  
; APPLICANT: Balasubramanian, Ambikaipakan  
; TITLE OF INVENTION: PEPTIDE YY ANALOGS  
; NUMBER OF SEQUENCES: 20  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Frost & Jacobs, L.L.P.  
; STREET: 2500 PNC Center, 201 East Fifth St.  
; CITY: Cincinnati  
; STATE: OH  
; COUNTRY: USA  
; ZIP: 45202-4182  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB storage  
; COMPUTER: IBM compatible  
; OPERATING SYSTEM: MS-DOS  
; SOFTWARE: Word 97  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/09/047,986B  
; FILING DATE: 25 March 1998  
; CLASSIFICATION: 514  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Kristyne A. Bullock  
; REGISTRATION NUMBER: 42,371  
; REFERENCE/DOCKET NUMBER: 9183030/508  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (513) 651-6731  
; TELEFAX: (513) 651-6981  
; TELEX: 21-4396 F&J Cln  
; INFORMATION FOR SEQ ID NO: 2:



SEQUENCE CHARACTERISTICS:  
LENGTH: 36 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
US-09-047-986B-2

Query Match 100.0%; Score 180; DB 3; Length 36;  
Best Local Similarity 100.0%; Pred. No. 1.5e-20;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
DB 3 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

## RESULT 5

US-09-229-900-2  
Sequence 2, Application US/09229900  
Patent No. 6288029

GENERAL INFORMATION:  
APPLICANT: Mutter, Manfred  
APPLICANT: Lacroix, Jean S.  
APPLICANT: Grouzmann, Eric  
TITLE OF INVENTION: Template Associated NPY Y2-Receptor  
TITLE OF INVENTION: Agonists  
NUMBER OF SEQUENCES: 8  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Vinson & Elkins LLP  
STREET: 1455 Pennsylvania Avenue, N.W.  
CITY: Washington  
STATE: D.C.  
COUNTRY: U.S.  
ZIP: 20004-1008  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/229,900  
FILING DATE:  
CLASSIFICATION:  
ATTORNEY/AGENT INFORMATION:  
NAME: Sanzo, Michael A.  
REGISTRATION NUMBER: 36,912  
REFERENCE/DOCKET NUMBER: BMR350/48000  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (202)639-6585  
TELEFAX: (202)639-6604  
INFORMATION FOR SEQ ID NO: 2:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 36 amino acids  
TYPE: amino acid  
STRANDEDNESS: not relevant  
TOPOLOGY: not relevant  
MOLECULE TYPE: peptide  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
US-09-229-900-2

Query Match 100.0%; Score 180; DB 4; Length 36;  
Best Local Similarity 100.0%; Pred. No. 1.5e-20;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
DB 3 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

RESULT 6

PCT-US95-14303-2  
Sequence 2, Application PC/TUS9514303  
GENERAL INFORMATION:

APPLICANT: McFadden, David W  
TITLE OF INVENTION: TREATMENT OF PANCREATIC TUMORS  
TITLE OF INVENTION: WITH PEPTIDE YY AND ANALOGS THEREOF  
NUMBER OF SEQUENCES: 5  
CORRESPONDENCE ADDRESS:

ADDRESSEE: POMS, SMITH, LANDE & ROSE  
STREET: 2029 Century Park East 38th Floor  
CITY: Los Angeles  
STATE: CA

COUNTRY: USA

ZIP: 90067

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: PCT/US95/14303

FILING DATE: 03 November 1995

CLASSIFICATION:

ATTORNEY/AGENT INFORMATION:

NAME: Oldenkamp, David J

REGISTRATION NUMBER: 29421

REFERENCE/DOCKET NUMBER: 107012F

TELECOMMUNICATION INFORMATION:

TELEPHONE: 310-788-5046

TELEFAX: 310-277-1297

INFORMATION FOR SEQ ID NO: 2:

SEQUENCE CHARACTERISTICS:

LENGTH: 36 amino acids

TYPE: amino acid

TOPOLOGY: linear

MOLECULE TYPE: peptide

ORIGINAL SOURCE:

ORGANISM: HUMAN PEPTIDE YY

PCT-US95-14303-2

Query Match 100.0%; Score 180; DB 5; Length 36;  
Best Local Similarity 100.0%; Pred. No. 1.5e-20;  
Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
DB 3 IKPEAPGEDASPEELNRYASLRHYLNLVTRQRY 36

## RESULT 7

US-07-882-923-3  
Sequence 3, Application US/07882923

Patent No. 5328899

GENERAL INFORMATION:

APPLICANT: Boublik, Jaroslav H.

APPLICANT: Rivier, Jean E.F.

APPLICANT: Brown, Marvin R.

APPLICANT: Scott, Neal A.

TITLE OF INVENTION: NPY PEPTIDE ANALOGS

NUMBER OF SEQUENCES: 14

CORRESPONDENCE ADDRESS:

ADDRESSEE: Fitch, Even, Tabin & Flannery

STREET: 4250 Executive Square, Suite 510

CITY: La Jolla

STATE: CA

COUNTRY: USA

ZIP: 92037

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

;; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/07/882,923  
; FILING DATE: 19920512  
; CLASSIFICATION: 514  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/503,198  
; FILING DATE: 30-MAR-1990  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/219,596  
; FILING DATE: 15-JUL-1988  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Schumann, James J.  
; REGISTRATION NUMBER: 20,856  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 619-552-1311  
; TELEFAX: 619-552-0095  
; INFORMATION FOR SEQ ID NO: 3:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 36 amino acids  
; TYPE: AMINO ACID  
; TOPOLOGY: unknown  
; MOLECULE TYPE: peptide  
US-07-882-923-3

Query Match 95.0%; Score 171; DB 1; Length 36;  
Best Local Similarity 97.0%; Pred. No. 3.4e-19;  
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 4 KPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 36

## RESULT 8

US-08-338-395-1  
; Sequence 1, Application US/08338395  
; Patent No. 5574010

## GENERAL INFORMATION:

APPLICANT: McFadden, David W  
TITLE OF INVENTION: TREATMENT OF PANCREATIC TUMORS WITH  
TITLE OF INVENTION: PEPTIDE YY AND ANALOGS THEREOF  
NUMBER OF SEQUENCES: 5  
CORRESPONDENCE ADDRESS:

ADDRESSEE: POMS, SMITH, LANDE & ROSE  
STREET: 2029 Century Park East 38th Floor  
CITY: Los Angeles  
STATE: CA  
COUNTRY: USA  
ZIP: 90067

## COMPUTER READABLE FORM:

MEDIUM TYPE: floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/338,395  
FILING DATE:

## CLASSIFICATION: 514

## ATTORNEY/AGENT INFORMATION:

NAME: Oldenkamp, David J  
REGISTRATION NUMBER: 29421  
REFERENCE/DOCKET NUMBER: 107012  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 310-788-5046  
TELEFAX: 310-277-1297

INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 36 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: peptide

;; ORIGINAL SOURCE:  
; ORGANISM: porcine peptide YY  
US-08-338-395-1

Query Match 95.0%; Score 171; DB 1; Length 36;  
Best Local Similarity 97.0%; Pred. No. 3.4e-19;  
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 4 KPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 36

## RESULT 9

US-08-329-151-1  
; Sequence 1, Application US/08329151  
; Patent No. 5604203

## GENERAL INFORMATION:

APPLICANT: Balasubramaniam, A.  
TITLE OF INVENTION: ANALOGS OF PEPTIDE YY AND USES  
TITLE OF INVENTION: THEREOF  
NUMBER OF SEQUENCES: 30  
CORRESPONDENCE ADDRESS:

ADDRESSEE: Fish & Richardson  
STREET: 225 Franklin Street  
CITY: Boston  
STATE: Massachusetts  
COUNTRY: U.S.A.  
ZIP: 02110-2804

## COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5" diskette, 1.44 MB  
COMPUTER: IBM PS/2 Model 50Z or 555X  
OPERATING SYSTEM: MS-DOS (Version 5.0)  
SOFTWARE: WordPerfect (Version 5.1)  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/329,151  
FILING DATE:

## CLASSIFICATION: 514

## PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/038,534  
FILING DATE: 3/29/93  
APPLICATION NUMBER: 08/109,326  
FILING DATE: 08/19/93

## ATTORNEY/AGENT INFORMATION:

NAME: Paul T. Clark  
REGISTRATION NUMBER: 30,162  
REFERENCE/DOCKET NUMBER: 00537/105001  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (617) 542-5070  
TELEFAX: (617) 542-8906  
TELEX: 200154

## INFORMATION FOR SEQ ID NO: 1:

SEQUENCE CHARACTERISTICS:  
LENGTH: 36  
TYPE: amino acid  
STRANDEDNESS: N/A  
TOPOLOGY: linear  
US-08-329-151-1

Query Match 95.0%; Score 171; DB 1; Length 36;  
Best Local Similarity 97.0%; Pred. No. 3.4e-19;  
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 4 KPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 36

## RESULT 10

US-09-047-986B-1  
; Sequence 1, Application US/09047986B

Patent No. 6046167  
GENERAL INFORMATION:  
APPLICANT: Balasubramanian, Ambikaipakan  
TITLE OF INVENTION: PEPTIDE YY ANALOGS  
NUMBER OF SEQUENCES: 20  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Frost & Jacobs, L.L.P.  
STREET: 2500 PNC Center, 201 East Fifth St.  
CITY: Cincinnati  
STATE: OH  
COUNTRY: USA  
ZIP: 45202-4182  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB storage  
COMPUTER: IBM compatible  
OPERATING SYSTEM: MS-DOS  
SOFTWARE: Word 97  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/047,986B  
FILING DATE: 25 March 1998  
CLASSIFICATION: 514  
ATTORNEY/AGENT INFORMATION:  
NAME: Kristyne A. Bullock  
REGISTRATION NUMBER: 42,371  
REFERENCE/DOCKET NUMBER: 9183030/508  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (513) 651-6731  
TELEFAX: 21-4396 F&J Cln  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 36 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
US-09-047-986B-1

Query Match 95.0%; Score 171; DB 3; Length 36;  
Best Local Similarity 97.0%; Pred. No. 3.4e-19;  
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 4 KPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 36

RESULT 11  
Sequence 1, Application PC/TUS9514303  
GENERAL INFORMATION:  
APPLICANT: McFadden, David W  
TITLE OF INVENTION: TREATMENT OF PANCREATIC TUMORS  
TITLE OF INVENTION: WITH PEPTIDE YY AND ANALOGS THEREOF  
NUMBER OF SEQUENCES: 5  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: POMS, SMITH, LANDE & ROSE  
STREET: 2029 Century Park East 38th Floor  
CITY: Los Angeles  
STATE: CA  
COUNTRY: USA  
ZIP: 90067  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: PCT/US95/14303  
FILING DATE: 03 November 1995  
CLASSIFICATION:  
ATTORNEY/AGENT INFORMATION:  
NAME: Oldenkamp, David J

REGISTRATION NUMBER: 29421  
REFERENCE/DOCKET NUMBER: 107012F  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 310-788-5046  
TELEFAX: 310-277-1297  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 36 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
ORIGINAL SOURCE:  
ORGANISM: porcine peptide YY  
PCT-US95-14303-1

Query Match 95.0%; Score 171; DB 5; Length 36;  
Best Local Similarity 97.0%; Pred. No. 3.4e-19;  
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
Db 4 KPEAPGEDASPEELSRYYASLRHYLNLVTRQRY 36

RESULT 12  
US-08-329-151-9  
Sequence 9, Application US/08329151  
Patent No. 5604203  
GENERAL INFORMATION:  
APPLICANT: Balasubramanian, A.  
TITLE OF INVENTION: ANALOGS OF PEPTIDE YY AND USES  
TITLE OF INVENTION: THEREOF  
NUMBER OF SEQUENCES: 30  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Fish & Richardson  
STREET: 225 Franklin Street  
CITY: Boston  
STATE: Massachusetts  
COUNTRY: U.S.A.  
ZIP: 02110-2804  
COMPUTER READABLE FORM:  
MEDIUM TYPE: 3.5" Diskette, 1.44 MB  
COMPUTER: IBM PS/2 Model 502 or 55SX  
OPERATING SYSTEM: MS-DOS (Version 5.0)  
SOFTWARE: WordPerfect (Version 5.1)  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/329,151  
FILING DATE:  
CLASSIFICATION: 514  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 08/038,534  
FILING DATE: 3/29/93  
APPLICATION NUMBER: 08/109,326  
FILING DATE: 08/19/93  
ATTORNEY/AGENT INFORMATION:  
NAME: Paul T. Clark  
REGISTRATION NUMBER: 30,162  
REFERENCE/DOCKET NUMBER: 00537/105001  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (617) 542-5070  
TELEFAX: (617) 542-8906  
TELEX: 200154  
INFORMATION FOR SEQ ID NO: 9:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 36  
TYPE: amino acid  
STRANDEDNESS: N/A  
TOPOLOGY: linear  
FEATURE:  
OTHER INFORMATION: Xaa in position 26 is an abbreviation of  
OTHER INFORMATION: im-DNP-His. The sequence has an acetylated N-terminus (i.  
OTHER INFORMATION: than an amino N-terminus (i.e., H2N-). The sequence has a

OTHER INFORMATION: (i.e., CO-NH2), rather than a carboxyl C-terminus (i.e., CO-D

US-08-329-151-9

Query Match 90.0%; Score 162; DB 1; Length 36;  
Best Local Similarity 93.9%; Pred. No. 7.7e-18;  
Matches 31; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
Db 4 KPEAPGEDASPEELSRYSRLRXLYLNLVTRQRY 36

## RESULT 13

US-07-776-272-30

Sequence 30, Application US/07776272  
Patent No. 5612454

## GENERAL INFORMATION:

APPLICANT: Kaminuma, Toshiniko  
APPLICANT: Iida, Toshi  
TITLE OF INVENTION: Process for Purification of Polypeptide  
NUMBER OF SEQUENCES: 31  
CORRESPONDENCE ADDRESS:

ADDRESSEE: Wegner, Cantor, Mueller & Player  
STREET: 1233 20th St. N.W. P.O. Box 18218  
CITY: Washington  
STATE: District of Columbia  
COUNTRY: United States of America  
ZIP: 20036-8218

## COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/07/776,272  
FILING DATE: 19911129

## CLASSIFICATION: 530

## ATTORNEY/AGENT INFORMATION:

NAME: Player, William E  
REGISTRATION NUMBER: 31,409  
REFERENCE/DOCKET NUMBER: P-450-23167  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 202-887-0400  
TELEFAX: 202-887-0605

TELEX: 440706

## INFORMATION FOR SEQ ID NO: 30:

## SEQUENCE CHARACTERISTICS:

LENGTH: 35 amino acids

TYPE: AMINO ACID

TOPOLOGY: linear

MOLECULE TYPE: peptide

HYPOTHETICAL: YES

US-07-776-272-30

Query Match 80.8%; Score 145.5; DB 1; Length 35;  
Best Local Similarity 90.9%; Pred. No. 2.3e-15;  
Matches 30; Conservative 1; Mismatches 1; Indels 1; Gaps 1;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
|||||  
Db 4 KPEAPGEDASPEELSR-YASLRHYLNLVTRQRY 35

## RESULT 14

US-07-882-923-1

Sequence 1, Application US/07882923  
Patent No. 5328899

## GENERAL INFORMATION:

APPLICANT: Boublík, Jaroslav H.  
APPLICANT: Rivier, Jean E.F.

APPLICANT: Brown, Marvin R.

APPLICANT: Scott, Neal A.

TITLE OF INVENTION: NPV PEPTIDE ANALOGS

NUMBER OF SEQUENCES: 14

CORRESPONDENCE ADDRESS:

ADDRESSEE: Fitch, Even, Tabin & Flannery

STREET: 4250 Executive Square, Suite 510

CITY: La Jolla

STATE: CA

COUNTRY: USA

ZIP: 92037

## COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/07/882,923

FILING DATE: 19920512

CLASSIFICATION: 514

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/503,198

FILING DATE: 30-MAR-1990

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/219,596

FILING DATE: 15-JUL-1988

ATTORNEY/AGENT INFORMATION:

NAME: Schumann, James J.

REGISTRATION NUMBER: 20,856

REFERENCE/DOCKET NUMBER: 52864

TELECOMMUNICATION INFORMATION:

TELEPHONE: 619-552-1311

TELEFAX: 619-552-0095

INFORMATION FOR SEQ ID NO: 1:

SEQUENCE CHARACTERISTICS:

LENGTH: 36 amino acids

TYPE: AMINO ACID

TOPOLOGY: unknown

MOLECULE TYPE: peptide

US-07-882-923-1

Query Match 74.4%; Score 134; DB 1; Length 36;  
Best Local Similarity 69.7%; Pred. No. 1.3e-13;  
Matches 23; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRQRY 34  
||:||||| |:| |||:|||||  
Db 4 KPDNPGEDAPADLARYSALRHYLNLVTRQRY 36

## RESULT 15

US-08-264-030-1

Sequence 1, Application US/08264030  
Patent No. 5569742

## GENERAL INFORMATION:

APPLICANT: Kirby, Dean A.

APPLICANT: Rivier, Jean E.F.

TITLE OF INVENTION: CENTRALLY TRUNCATED NPV CYCLIC PEPTIDE

TITLE OF INVENTION: ANALOGS

NUMBER OF SEQUENCES: 11

CORRESPONDENCE ADDRESS:

ADDRESSEE: Fitch, Even, Tabin & Flannery

STREET: 135 South La Salle Street, Suite 900

CITY: Chicago

STATE: IL

COUNTRY: USA

ZIP: 60603

## COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25



CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/264,030  
FILING DATE:  
CLASSIFICATION: 530  
ATTORNEY/AGENT INFORMATION:  
NAME: Schumann, James J  
REGISTRATION NUMBER: 20,856  
REFERENCE/DOCKET NUMBER: 55649  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 552-1311  
TELEFAX: (619) 552-0095  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 36 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
S-08-264-030-1

Query Match 74.4%; Score 134; DB 1; Length 36;  
Best Local Similarity 69.7%; Pred. No. 1.3e-13;  
Matches 23; Conservative 6; Mismatches 4; Indels 0; Gaps 0;  
QY 2 KPEAPGEDASPEELNRYASLRHYLNLVTRORY 34  
||:||||| |:| |||:||||:|||||  
Db 4 KPDNPGEDAPADLARYYSALRHYINLITRORY 36

Search completed: July 30, 2002, 08:01:31  
Job time: 119 sec

